AD-A241 519

AD UCRL-21008 Vol. 2, Part 2 Approved for public release Distribution unlimited

Evaluation of Military Field-Water Quality

Volume 2. Constituents of Military Concern from Natural and Anthropogenic Sources Part 2. Pesticides

> R. Scofield J. Kelly-Reif F. Li

T. Awad

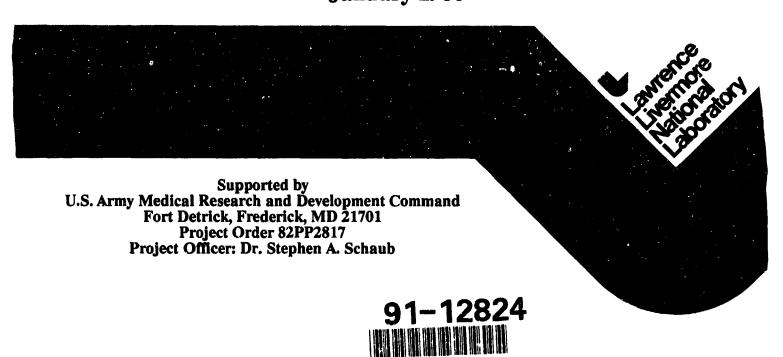
W. Malloch

P. Lessard

D. Hsieh

January 1988





DISCLAIMER

This document was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor the University of California nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or the University of California, and shall not be used for advertising or product endorsement purposes.

Work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract W-7405-Eng-48.

Evaluation of Military Field-Water Quality

Volume 2. Constituents of Military Concern from Natural and Anthropogenic Sources Part 2. Pesticides

> R. Scofield J. Kelly-Reif F. Li

> > T. Awad

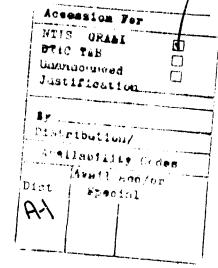
W. Malloch

P. Lessard

D. Hsieh

January 1988

Supported by
U.S. Army Medical Research and Development Command
Fort Detrick, Frederick, MD 21701
Project Order 82PP2817
Project Officer: Dr. Stephen A. Schaub





DISCLAIMER

This document was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor the University of California nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or the University of California, and shall not be used for advertising or product endorsement purposes.

Work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract W-7405-Eng-48.

SECURITY COASSIDCATION OF THE STACE

REPORT	Form Approved OMB No. 0704-0188								
1a REPORT SECURITY CLASSIFICATION UNCLASSIFIED	TA REPORT SECURITY CLASSIFICATION UNCLASSIFIED			TO RESTRICTIVE MARKINGS					
28 SECURITY CLASSIFICATION AUTHORITY	3 Distribution, availability of REPORT Approved for public release;								
26 DECLASSIFICATION / DOWNGRADING SCHED	JLE		on unlimited)					
PERFORMING ORGANIZATION REPORT NUMB UCRL-21008 Vol. 2, Part 2	ER(S)	5 MONITORING	ORGANIZATION REPORT NU	MBER(S)					
6a. NAME OF PERFORMING ORGANIZATION Lawrence Livermore National Laboratory	6b Office SYMBOL (if applicable)	U.S. Army	onitoring organization Biomedical Research t Laboratory						
Sc. ADDRESS (City, State, and ZIP Code) Environmental Sciences Division P.O. Box 5507 (L-453) Livermore, CA 94550-0617		ATTN: SGR Fort Detri	y, State, and ZIP Code) D-UBZ-C ck (Bldg. 568) MD 21701-5010	•					
Sa. NAME OF FUNDING/SPONSORING ORGANIZATION U.S. Army Medical Research and Development Command	8b. OFFICE SYMBOL (If applicable)		r instrument identificati ct Order 82PP2817						
Dc. ADDRESS (City, State, and ZIP Code)	1	10 SOURCE OF F	UNDING NUMBERS						
Fort Detrick Frederick, MD 21701-5012									
11. fift <i>E (Include Security Classification)</i> Evaluation of Military,Field-Wa Natural and Anthropogenic Sourc	ter Quality. Vo es. Part 2. Pes	lume 2. Cons ticides	tituents of Milita	ry Concern from					
12. PERSONAL AUTHORS) R. Scofield, J. Kelly-Reif, F.	Li. T. Awad. W.	Malloch, P.	lessard. D. Hsieh						
13a. TYPE OF REPORT 13b. TIME CO.	OVERED		RT (Year, Month, Day) 15.	PAGE COUNT 191					
16. SUPPLEMENTARY NOTATION									
17. COSATI CODES	18. SUBJECT TERMS (C	ontinue on reverse	of necessary and identify b	y block number)					
FIELD GROUP SUB-GROUP 24 07			itary, field water	, pesticides,					
05 11	health and org	•	160.						
The purpose of this part of Volume 2 is to assess the hazard that pesticides in water pose to the health and performance of troops stationed overseas. To assess the likely exposure, the open literature was searched for reports of pesticide concentrations in water, primarily outside of the United States. Based on 15-L/d water consumption, pesticides found in concentrations causing an excess of an Acceptable Daily Intake (as proposed by the World Health Organization) were further evaluated for their toxicity and exposure potential. The assessment included information collected on quantities of pesticides used around the world. Incidents of severe contamination of water by pesticides were also investigated to identify situations that might involve serious pesticide contamination. As a result of the investigation, we found that pesticide contamination of large bodies of water (e.g., lakes, rivers, and oceans) is generally not at levels that threaten (continued on next page)									
UNCLASSIFIED/UNLIMITED A SAME AS R	PT DTIC USERS	UNCLASSIF	nclude Area Code) 22c. OF	ICE SYMBOL					
Mary Frances Bostian		301-663-732	SGRD-I	RMI-S					

troop health or performance. Consequently, foreign water supplies need not be routinely treated specifically to remove pesticides. The greatest threat to troop health from pesticides in water appears to come from infrequent, transient occurrences of extreme contamination, particularly in small bodies of water with little potential for dilution.

Because severe contaminations are known to occur, and because they would seriously affect the health and performance ability of troops, it is recommended that the military develop field techniques to detect certain classes of pesticides and selected individual pesticides. Because pesticide-contaminated water may be the only available source of drinking water, it is also recommended that the treatability of pesticides in water be investigated. It must be recognized that, by accident or intent, any pesticide can be present in water at levels that would render water unacceptable for use. However, lindane is the pesticide that appears the most likely to be found at dangerous levels in water as a result of its normal use. The most widely used organophosphates (e.g., malathion and parathion) appear to present a less likely hazard, but these compounds should also be considered for the devalopment of detection techniques and for treatability studies.

This report is the second part of the second volume of a nine-volume study entitled Evaluation of Military Field-Water Quality. The first and third parts of this volume address organic chemical contaminants and inorganic chemicals and physical properties, respectively. Titles of the other volumes are as follows: Vol. 1, Executive Summary; Vol. 3, Opportunity Poisons; Vol. 4, Health Criteria and Recommendations for Standards; Vol. 5, Infectious Organisms of Military Concern Associated with Consumption: Assessment of Health Risks, and Recommendations for Establishing Related Standards; Vol. 6, Infectious Organisms of Military Concern Associated with Nonconsumptive Exposure: Assessment of Health Risks, and Recommendations for Establishing Related Standards; Vol. 7, Performance Evaluation of the 600-GPH Reverse Osmosis Water Purification Unit (ROWPU): Reverse Osmosis (RO) Components; Vol. 8, Performance of Mobile Water Purification (MWPU) and Pretreatment Components of the 600-GPH Reverse Osmosis Water Purification Unit (ROWPU) and Consideration of Reverse Osmosis (RO) Bypass, Potable-Water Disinfection, and Water-Quality Analysis Techniques; and Vol. 9, Data for Assessing Health Risks in Potential Theaters of Operation for U.S. Military Forces.

Evaluation of Military Field-Water Quality

Volume 2. Constituents of Military Concern from Natural and Anthropogenic Sources Part 2. Pesticides

R. Scofield,* J. Kelly-Reif, † F. Li, † T. Awad, † W. Malloch, † P. Lessard, † and D. Hsieh †

Environmental Sciences Division Lawrence Livermore National Laboratory University of California P. O. Box 5507 Livermore, CA 94550

January 1988

Supported by
U.S. Army Medical Research and Development Command
Fort Detrick, Frederick, MD 21701

Project Order 82PP2817

Project Officer: S. A. Schaub

Principal Investigators at Lawrence Livermore National Laboratory: L. R. Anspaugh, J. I. Daniels, and D. W. Layton

Approved for public release; distribution unlimited

The findings of this report are not to be construed as an official Department of the Army position unless so designated by other authorized documents.

^{*} Department of Environmental Toxicology, University of California, Davis, CA 95616. Present address: ENVIRON Corporation, 6475 Christie Avenue, Emeryville, CA 94608.

[†] Department of Environmental Toxicology, University of California, Davis, CA 95616.

FOREWORD

This report is the second part of the second volume of a nine-volume study entitled Evaluation of Military Field-Water Quality. The first and third parts of this volume address organic chemical contaminants and inorganic chemicals and physical properties, respectively. Titles of the other volumes are as follows: Vol. 1, Executive Summary; Vol. 3, Opportunity Poisons; Vol. 4, Health Criteria and Recommendations for Standards; Vol. 5, Infectious Organisms of Military Concern Associated with Consumption: Assessment of Health Risks, and Recommendations for Establishing Related Standards; Vol. 6, Infectious Organisms of Military Concern Associated with Nonconsumptive Exposure: Assessment of Health Risks, and Recommendations for Establishing Related Standards; Vol. 7, Performance Evaluation of the 600-GPH Reverse Osmosis Water Purification Unit (ROWPU): Reverse Osmosis (RO) Components; Vol. 8, Performance of Mobile Water Purification Unit (MWPU) and Pretreatment Components of the 600-GPH Reverse Osmosis Water Purification Unit (ROWPU) and Consideration of Reverse Osmosis (RO) Bypass, Potable-Water Disinfection, and Water-Quality Analysis Techniques; and Vol. 9, Data for Assessing Health Risks in Potential Theaters of Operation for U.S. Military Forces.

As indicated by the titles listed above, the nine volumes of this study contain a comprehensive assessment of the chemical, radiological, and biological constituents of field-water supplies that could pose health risks to military personnel as well as a detailed evaluation of the field-water-treatment capability of the U.S. Armed Forces. The scientific expertise for performing the analyses in this study came from the University of California Lawrence Livermore National Laboratory (LLNL) in Livermore, CA; the University of California campuses located in Berkeley (UCB) and Davis (UCD), CA; the University of Illinois campus in Champaign-Urbana, IL; and the consulting firms of IWG Corporation in San Diego, CA, and V.J. Ciccone & Associates (VJCA), Inc., in Woodbridge, VA. Additionally a Department of Defense (DoD) Multiservice Steering Group (MSG), consisting of both military and civilian representatives from the Armed Forces of the United States (Army, Navy, Air Force, and Marines), as well as representatives from the U.S. Department of Defense, and the U.S. Environmental Protection Agency provided guidance, and critical reviews to the researchers. The reports addressing chemical, radiological, and biological constituents of field-water supplies were also reviewed by scientists at Oak Ridge National Laboratory in Oak Ridge, TN, at the request of the U.S. Army. Furthermore, personnel at several research laboratories, military installations, and agencies of the U.S. Army and the other Armed Forces provided technical assistance and information to the researchers on topics related to field water and the U.S. military community.

ACKNOWLEDGMENTS

The principal investigators at the Lawrence Livermore National Laboratory (LLNL), Drs. Jeffrey Daniels, David Layton, and Lynn Anspaugh, extend their gratitude and appreciation to all of the participants in this study for their cooperation, assistance, contributions and patience, especially to Dr. Stephen A. Schaub, the project officer for this monumental research effort, and to his military and civilian colleagues and staff at the U.S. Army Biomedical Research and Development Laboratory (USABRDL). A special thank you is extended to the editors, secretaries, and administrative personnel of the Environmental Sciences Division at LLNL, particularly to Ms. Barbara Fox, Ms. Yvonne Ricker, Ms. Penny Webster-Scholten, Mr. E.G. Snyder, Ms. Gretchen Gallegos, Ms. Angelina Fountain, Ms. Sherry Kenmille, Mr. David Marcus, Ms. Martha Maser, and Ms. Sheilah Hendrickson, whose efforts, support, and assistance included the typing and editing of over 2500 pages of text.

CONTENTS

Foreword		•	•	•		•	•	•	•	iii
Acknowledgments									,	iv
List of Tables	•								•	vii
Preface									•	ix
Abstract										1
Introduction		•								2
Screening Methodology				•						2
Procedure Used to Identify Pesticides in Water Supplies										3
Monitoring Data			•							3
Pesticide Production and Use Data										5
Health Incidents from Pesticide Contamination of Water				•						5
Process Used to Identify Pesticides of Most Concern as Wate	r									
Contaminants									•	7
Primary Screening									•	7
Secondary Screening										9
Results	•	•	•	•	•	•	•	•	•	10
Pesticides Most Likely to Be Present in Foreign Water Suppli	es	•	•	•	•	•	•		•	10
Monitoring Data	•	•	•	•		•	•	•	•	10
Limitations of Monitoring Data	•	•	•	•	•	•	•	•	•	10
Pesticide Production and Use Data	•	•	•		•			•	•	11
Health Incidents from Pesticide Contamination of Water		•		•	•	•		•		13
Pesticides of Most Concern as Contaminants in Foreign Water	r S	Sup	pli	es	•	•	•			18
Primary Screening			•		•	•		•	•	18
Secondary Screening				•				•	•	22
Aldrin	•	•		•		•	•			22
DDT		•		•			•			23
Diazinon	•						•			25
Dieldrin							•	•	•	26
Endrin	•		•	•					•	28
Leptophos									•	31
Lindane	•		•						•	32
Malathion										34
Phosphamidon										36
Toxaphene										37

Volume 2, Pt. 2

Discussion and Conclusions			•				•	•	40
Recommendations for Further Research									47
References									48
Appendix A. Pesticide Use Information Sources				•	•				58
References for Appendix A									61
Appendix B. Organoleptic Threshold Concentrations in Water Several Pesticides	f fo	or						•	63
References for Appendix B									
Appendix C. Monitoring Data for Pesticide Levels in Water .									
References for Appendix C								•	1.69

LIST OF TABLES

1.	containing concentration data
2.	Organizations contacted to obtain information on the occurrence of pesticides
3.	Worldwide pesticide sales by geographical area - 1982
4.	Worldwide pesticide sales for selected crops
5.	Amounts of major insecticides imported and used in Egypt (1950–1980)
6.	Production of technical-grade pesticides in India (1978 to 1981)
7.	Amount of imported and nationally produced insecticides during 1979 to 1981 for Brazil
8.	Insecticide production and use in China for 1982
9.	U.S. insecticide use on corn, rice, cotton, soybeans, and wheat
10.	Changes in demand for types of insecticides by main user regions (1975 to 1990)
11.	Health incidents from pesticides in water
12.	Primary screening list
13.	Dose-response data for aldrin
14.	Dose-response data for DDT
15.	Dose-response data for diazinon
16.	Dose-response data for dieldrin
17.	Dose-response data for endrin
18.	Dose-response data for leptophos
19.	Mammalian dose-response data for lindane
20.	Dose-response data for malathion

Vol	ume	2.	Pt.	2
-----	-----	----	-----	---

21.	Dose-response data for phosphamidon					•	•	•	•	38
22.	Dose-response data for toxaphene						•			39
23.	Comparison between ADI-based and LD50-based screening concentrations and highest monitored concentrations below these screening levels	•	•	•	•	•	•	•		41
24.	Comparison between ADI-based and LD50-based screening concentrations and highest monitored concentrations below these screening levels	•		•	•	•	•	•	•	43

CONSTITUENTS OF MILITARY CONCERN FROM NATURAL AND ANTHROPOGENIC SOURCES

Part 2. Pesticides

PREFACE

Water that may be used by military personnel in the field can contain many different organic and inorganic chemical constituents. These chemicals may exist in a dissolved or colloidal state or on suspended material, and they are present as a consequence of either natural geochemical and hydrological processes or the industrial, domestic, or agricultural activities of man.

The health risk to military personnel from a chemical constituent of field water is largely a function of the frequency with which it occurs at concentrations that are high enough to produce a toxic or organoleptic (e.g., detectable taste or odor) effect that leads directly or indirectly to the diminished ability of exposed military forces to perform assigned tasks. To minimize performance-related effects in military personnel using field-water supplies, the high-risk chemical constituents must be identified and analyzed. The potential health risks of the contaminants can then be managed by adopting field-water quality standards. The health effects that could occur when standards are exceeded can be addressed on a case-by-case basis.

The objective of this volume of Evaluation of Military Field-Water Quality is to indicate the chemical constituents of field water that are of possible military concern and to describe the screening methodology and supporting data that we used to identify them. Briefly, the screening methodology is separated into two phases. In both phases the general approach consists of comparing (1) the maximum likely concentration in field water of each possible chemical constituent with (2) a corresponding concentration we estimate to be the threshold above which toxic effects, including impaired performance, could occur. Our analyses are based on 70-kg military personnel consuming field water at a maximum rate of 15 L/d. Maximum likely concentrations in field water for each chemical are derived from our compilation of available U.S. and worldwide water-quality monitoring data. However, in the first phase of screening we make conservative assumptions to extrapolate the threshold concentration above which toxic effects could occur in military forces from either oral-mammalian LD50 (lethal dose to 50% of a population) data or Acceptable Daily Intake (ADI) values for humans. The result of this

screening procedure is to exclude from further consideration those chemical constituents that are not expected to be of military concern. Although the conservative assumptions incorporated into the initial screening exercise minimize the omission of substances that may actually be of concern, some substances may be identified incorrectly as high risk. Therefore, to refine the results of the initial screening effort, we reexamine the available monitoring data and review the published human-toxicity data more carefully for each chemical indicated to be of possible military concern. Next, we use any more appropriate human-toxicity data (e.g., dose-response information from reported accidental poisonings, occupational exposures, or therapeutic administrations) we find and apply it in the second phase of screening. Then, as in the initial screening procedure, any ratio greater than unity between the maximum likely concentration for a chemical in field water and the concentration above which it could produce toxic or organoleptic effects in 70-kg military personnel consuming field water at a maximum rate of 15 L/d indicates that the chemical really could be of military concern. Because impaired performance can occur as a result of indirect health effects, especially from heat illnesses caused by dehydration resulting from reduced consumption of poor-tasting water, we also screen the initial list of chemicals by comparing maximum likely concentration data for each one with available data corresponding to the concentration of the substance that represents the taste- or odor-detection threshold in water.

To facilitate data acquisition, analysis, and review, as well as application of the screening methodology, we separated the potential chemical constituents of field water into three categories and divided Volume 2 into three corresponding parts. Part 1 covers organic solutes (except pesticides), Part 2 addresses pesticides, and Part 3 focuses on inorganic chemicals and physical properties.

ABSTRACT

The purpose of this part of Volume 2 is to assess the hazard that pesticides in water pose to the health and performance of troops stationed overseas. To assess the likely exposure, the open literature was searched for reports of pesticide concentrations in water, primarily outside of the United States. Based on 15-L/d water consumption, pesticides found in concentrations causing an excess of an Acceptable Daily Intake (as proposed by the World Health Organization) were further evaluated for their toxicity and exposure potential. The assessment included information collected on quantities of pesticides used around the world. Incidents of severe contamination of water by pesticides were also investigated to identify situations that might involve serious pesticide contamination.

As a result of the investigation, we found that pesticide contamination of large bodies of water (e.g., lakes, rivers, and oceans) is generally not at levels that threaten troop health or performance. Consequently, foreign water supplies need not be routinely treated specifically to remove pesticides. The greatest threat to troop health from pesticides in water appears to come from infrequent, transient occurrences of extreme contamination, particularly in small bodies of water with little potential for dilution.

Because severe contaminations are known to occur, and because they would seriously affect the health and performance ability of troops, it is recommended that the military develop field techniques to detect certain classes of pesticides and selected individual pesticides. Because pesticide-contaminated water may be the only available source of drinking water, it is also recommended that the treatability of pesticides in water be investigated. It must be recognized that, by accident or intent, any pesticide can be present in water at levels that would render water unacceptable for use. However, lindane is the pesticide that appears the most likely to be found at dangerous levels in water as a result of its normal use. The most widely used organophosphates (e.g., malathion and parathion) appear to present a less likely hazard, but these compounds should also be considered for the development of detection techniques and for treatability studies.

INTRODUCTION

Certain chemical constituents of field water can adversely affect the health of military personnel and can diminish the ability of the individual soldier to perform assigned tasks. The purpose of Volume 2 of Evaluation of Military Field-Water Quality is to identify these chemicals. Key considerations in identifying these substances are (1) their occurrence in foreign water supplies, (2) the concentrations measured, and most importantly (3) their toxicity. Volume 2 is divided into three parts: Part 1 covers organic solutes (except pesticides), Part 2 addresses pesticides, and Part 3 focuses on inorganic solutes and physical properties.

In this part of Volume 2, we assess the hazard that pesticides in water pose to the health and performance of troops stationed in foreign countries. As a category, pesticides are important because they are closely associated with agricultural irrigation and can be present in both ground water and surface water. In addition, large volumes of pesticides are used in all regions of the world, and many are known to be toxic to humans at relatively low doses.

The methodology that we use to identify pesticides that may pose problems in military field-water supplies includes a screening evaluation for potential toxicity in water of all pesticides for which water concentration data are available, and a closer examination of those pesticides that screening indicates could be found in water at concentrations at or near toxic levels. Not all of the information needed by the personnel responsible for the management of the risks that pesticides in water present to troop health is currently available. These information gaps are described at the end of this part, along with any pesticides considered to be used frequently enough and at high enough concentrations that establishing related field-water quality standards would be beneficial for troop health.

SCREENING METHODOLOGY

The purpose of pesticide screening is to identify any pesticides that might be in the water supplies used by military personnel and to indicate the ones among these that are most likely to cause performance-degrading or irreversible health effects, based on a drinking-water consumption rate of up to 15 L/d. Distinguishing the most threatening among these pesticides requires a qualitative assessment of the risks posed by each one. Performing such an assessment not only requires identifying the pesticides likely to be present in the water, but also estimating the concentrations of those pesticides and the health consequences of consuming water with the expected levels of posticide

contamination. The methodology we use to screen the pesticides and to identify the most threatening among them involves collecting the information mentioned above and evaluating it in order to support a judgment as to which pesticides require maximum-concentration standards.

A flowsheet illustrating the use of the information collected to evaluate the relative risks presented by pesticides in drinking water is presented in Fig. 1. The procedure used to identify the pesticides likely to be present in foreign water supplies is described below. Following it is a description of the process used to evaluate the list of pesticides and to identify those that are most likely to cause performance degradation and irreversible health effects in troops.

PROCEDURE USED TO IDENTIFY PESTICIDES IN WATER SUPPLIES

As illustrated in Figure 1, three different kinds of data were examined to identify the pesticides likely to be present in water supplies. The three kinds of data were monitoring data, production and use data, and literature reports of illnesses caused by pesticide-contaminated drinking water. Monitoring data showed which pesticides have been identified in various drinking-water supplies and their concentrations. Production and use data disclosed which pesticides have been manufactured and applied in the greatest amounts. The ones used in the greatest amounts are more likely to find their way into water supplies and to be present at toxic concentrations. The third kind of information used to identify pesticides in water supplies was literature reports of illnesses attributed to pesticide contamination of drinking water. The limitations of each source of data are discussed below. We used the three different sources of data to create the list of pesticides to be screened.

Monitoring Data

The purpose of using monitoring data on pesticide levels in water was to characterize the extent to which troops stationed overseas would be exposed to pesticides through water supplies. We wanted to know which pesticides had been found in the water, what concentrations had been measured, which pesticides are most commonly present in water, and which waters are most frequently and severely contaminated. The available monitoring data alone could not answer all of these questions definitively, but it could provide the best indications of the extent of exposure. Consequently, we put substantial effort into collecting this information.

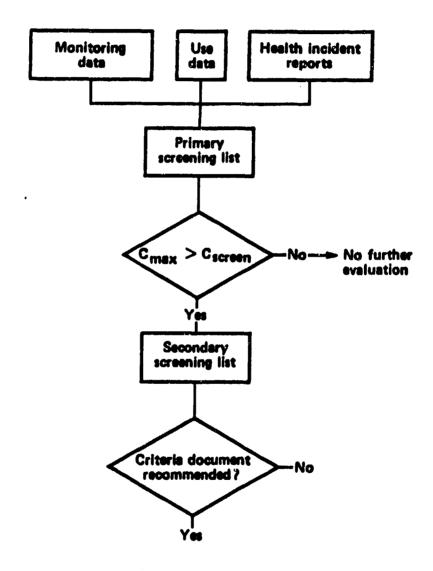


Figure 1. Screening methodology. (C_{max} = maximum concentration in field water, above which toxicity is predicted for field personnel consuming water at a rate of up to 15 L/d; C_{screen} = screening concentration for human toxicity.)

Most of the monitoring data we collected was obtained from an extensive search of the open world literature. Manual searches through the collections of various general and specialized libraries and bibliographies uncovered many valuable reports. However, the most productive sources of data proved to be computerized bibliographic data bases. Fifteen data bases (Table 1) were searched for articles and reports back to 1970. After we obtained relevant documents, cross-references to other authors were also investigated. The concentration data reported from many studies were entered into a computerized data base to facilitate evaluation.

During the course of our research we also discovered unpublished bodies of data on pesticide levels in water. For a variety of reasons, not all of these data could be made available to this study. Some of these data may be obtainable through diplomatic channels or made available to the public after the passage of time. We obtained other unpublished information through personal communication with a number of organizations (see Table 2).

Pesticide Production and Use Data

The purpose of collecting data on the production and use of pesticides in foreign countries was to identify the pesticides that are used abroad in large quantities. Pesticides produced or used in large volumes are assumed to have a greater probability of being present in water supplies at toxic concentrations. In addition, the production and use data complement the monitoring data. For example, some pesticides are very difficult to detect in water and may not be measured in the waters of some countries, even though they are used extensively. These pesticides were evaluated more closely for their potential to contaminate water supplies.

Information on the production and use of pesticides in foreign countries was primarily collected from literature sources. For some countries, we supplemented these sources with information obtained from conversations with individuals knowledgeable about pesticide use in those countries. Statistical literature on pesticide use is abundant. However, at present, there is no single guide to this subject on a worldwide basis. Accordingly, we relied on several different sources. These are listed and briefly described in Appendix A.

Health Incidents from Pesticide Contamination of Water

Another data source for identifying pesticides that might present health hazards as drinking-water contaminants was documented incidents in which pesticides in drinking

Table 1. Bibliographic data bases used to locate documents containing concentration data.

Chemical Abstracts

Aqualine

Aquatic Science Abstracts

Pollution Abstracts

Water Resources Abstracts

Toxline

Enviroline

NTIS

BIOSIS Previews

CAB Abstracts

Agricola

Oceanic Abstracts

Environmental Bibliography

Predicasts

Science Citation Index

Table 2. Organizations contacted to obtain information on the occurrence of pesticides.

USDA, Economic Research Service

Battelle Memorial Research Institute

SRI International

Predicasts

UN Environmental Program: International Register of Potentially Toxic Chemicals

Canada, Prairie Provinces Water Board. National Water Quality Data Bank (NAQUADAT)

Stauffer Chemical Company

UC Berkeley, Water Resources Archives

Egyptian Ministry of Agriculture

water actually had caused human health problems. This type of data was completely different from the two types previously described, which were limited to identification or prediction of the presence of pesticides in water. As such, we felt that these additional data assure that we had identified the most important potential pesticide contaminants. To collect these data, we searched the open literature for any case reports or epidemiology reports of human health effects attributed to pesticides in drinking water. Evaluation of these incidents would help identify potential pesticide problems. These incidents were also of value in assessing the relative importance of the different pesticides and of pesticides as a class in comparison with nonpesticide organic and inorganic substances covered in Parts 1 and 3 of Volume 2.

PROCESS USED TO IDENTIFY PESTICIDES OF MOST CONCERN AS WATER CONTAMINANTS

We assembled a rather long list of pesticides known or strongly suspected to be present in water from the different sources of data we reviewed. The next step was to determine which pesticides would be likely to be found at concentrations too low to cause human health effects, and to remove such pesticides from further consideration. This separation process is referred to as the primary screening. The remaining pesticides were evaluated to assess their likelihood of causing performance degradation in troops and to determine whether the establishment of a maximum allowable concentration would help protect troop health. This further evaluation is referred to as the secondary screening. The methods and rationale for the primary and secondary screenings are described below.

Primary Screening

The primary screening is a comparison of the maximum pesticide concentrations reported in water to concentrations judged to be acceptable for at least one year of exposure. Pesticides found in water at concentrations exceeding acceptable concentrations even once were flagged for closer scrutiny. Very conservative estimates of acceptable concentrations for the assumed maximum exposure period of one year were used to assure that pesticides omitted from further scrutiny were unlikely to cause human health problems.

The acceptable concentration was based on Acceptable Daily Intake (ADI), as recommended by the Food and Agricultural Organization of the World Health Organization (FAO/WHO). ADI's are total daily doses judged by FAO expert panels to be

acceptable for lifetime exposures. An ADI is given in units of mg/kg body weight, and we converted this into a drinking-water concentration, using the assumption of a 70-kg adult and a 15-L/d water consumption rate. The screening concentrations were calculated from the ADI by

$$C_{S} - ADI \cdot \frac{W}{I}, \tag{1}$$

where

C_s - screening concentration for human toxicity, mg/L;

ADI - acceptable daily intake, mg/(kg·d);

W - reference body weight of a soldier, kg; and

I = maximum daily intake of water, L/d.

Typically, pesticide residues on food account for 90% or more of the exposure, and residues in water only contribute a small fraction of the total daily exposure. Our calculations used to derive the concentrations for screening comparisons do not account for the intake of pesticides from food. These values are nonetheless conservative estimates of pesticide concentrations likely to produce adverse effects in humans because the ADI is judged to be safe for a lifetime exposure, and our concern is a one-year exposure. In addition, the assumed 15-L/d water consumption rate is unlikely to be sustained for an entire year.

The FAO has not established ADI's for all pesticides; thus, in order to identify which of these pesticides need further evaluation, based on screening comparisons, it was necessary for us to use an additional method of calculating a screening concentration, not based on an ADI. For these calculations, we employed the methodology described by Layton et al. in Part 1 of Volume 2. This methodology is based on converting the oral LD50 (lethal dose, expressed in mg of chemical per kg of body weight, to 50% of a population of laboratory animals) for a particular chemical to a dose with a high probability of being below a toxic threshold for humans--a lower-bound limit equivalent to a no-observed-effect level (NOEL). Under this scheme, the LD50 (mg/kg) for a particular chemical is multiplied by a conversion factor derived from a statistical analysis of the ratios between LD50 values and subchronic (~90-d) NOEL's [mg/(kg•d)] determined for 33 organic chemicals. The conversion factor selected for the purposes of the screening effort was 0.004 d⁻¹, the ratio corresponding to the tenth cumulative percentile of the log normal distribution of all of the ratios (geometric mean of the ratios was 0.03 d⁻¹, with a geometric standard deviation of 4.8). The calculated NOEL is then adjusted further by a safety this safety factor is used in the setting factor of 100 because

of standards and to account for inter- and intraspecies variations. Therefore, the screening concentration for human toxicity for a particular pesticide (C_s), in units of mg/L (based on a reference body weight of 70 kg and a maximum drinking-water consumption rate of up to 15 L/d for military personnel), can be computed from its LD50 (mg/kg) according to the expression:

$$C_{s} = \frac{LD50 \cdot 0.004}{100} \cdot \frac{70}{15} . \tag{2}$$

To simplify this computation for determining screening concentrations, the LD50 is multiplied by 10^{-4} . For purposes of completeness, we also applied this calculation to those pesticides where ADI data were available.

In addition to the two ways for determining screening concentrations, we compared the available taste- and odor-threshold concentrations for several pesticides (see Appendix B) with their ambient water concentrations. The pesticide concentrations that were found to exceed their taste or odor thresholds were noted, but they were not given closer evaluation for potential health effects unless they also exceeded one of the calculated screening concentrations for human toxicity.

Secondary Screening

The primary screening is a conservative approach because it is designed to identify even those pesticides that would cause adverse effects following exposures of many years, and the assumed exposure period for consuming field water is only one year. For example, some pesticides are suspected of being carcinogenic, and their ADI's are established at a very low level, representing the FAO's judgments of an acceptably low cancer risk from a lifetime exposure. The secondary screening is used to examine the pesticides that the primary screening indicated to be of possible concern to troop health, and to separate the pesticides that may actually cause performance-degrading effects in troops from the ones that are unlikely to cause such effects during a one-year exposure period. Pesticides unlikely to cause performance-degrading effects may still present some risk of chronic effects (e.g., cancer). When evidence of this was available, it was mentioned in the secondary screening evaluation.

The secondary screening evaluations assess the exposure to the pesticides by identifying the common uses and extent of use of the pesticide. The typical and maximum concentrations likely to be encountered are also discussed on the basis of monitoring data and theoretical considerations (e.g., solubility in water). The likely human health effects caused by the characterized exposures are then described.

RESULTS

The results of this study are presented in two parts. The first describes the results of the efforts to identify the pesticides likely to be present in water supplies used by troops stationed overseas and presents a list of the identified pesticides. The second part describes the results of efforts to evaluate the pesticide list and characterizes the hazards that pesticides in water appear to present to troop health.

PESTICIDES MOST LIKELY TO BE PRESENT IN FOREIGN WATER SUPPLIES

The most useful information on the kinds of pesticides present in water, the level of contamination, and the types of water bodies most likely to be dangerously contaminated came from the monitoring data that we collected. These results are described below. Supplementing and reinforcing the monitoring data are the findings from pesticide production and use, as well as reports of health incidents attributed to pesticides in drinking water.

Monitoring Data

The data base we created from our collection of monitoring data has approximately 500 sampling sites. Approximately 50% of the samples are within detection limits. Chlorinated-hydrocarbon insecticides appear to be the most frequently occurring class of pesticides. The compounds found most often were DDT, along with its isomer and metabolites (o,p'-DDT, DDE, and DDD); BHC and its isomers (alpha-, beta-, and gamma-, i.e., lindane); dieldrin and aldrin; heptachlor and heptachlor epoxide. A complete record of the monitoring data has been assembled in Appendix C.

Limitations of Monitoring Data. The primary purpose of collecting the monitoring data was to estimate the level of pesticides that troops might encounter in foreign water supplies. The main shortcoming of the data is that so little of it is available. This appears to be largely attributable to the lack of water-monitoring programs in most parts of the world. In some countries monitoring data exist, but never reach the open literature, and the government ministries or agricultural research institutes in possession of such data are reluctant to release them. A much smaller amount of data has not been included in the data base because we were unable to translate all of the foreign-language reports we received, or because we were unable to locate all reports identified as containing pertinent data.

Another important limitation of the monitoring data is that the most severely contaminated bodies of water are the least represented in the data base. On the basis of measurements reported in the literature and conversations with individuals who are familiar with pesticide practices in developing countries, the most severely contaminated waters appear to be small sources, such as canals and reservoirs, adjacent to irrigated lands. These sources are poorly represented in our data base. There are also relatively little monitoring data available on the levels of pesticide contamination in ground water. The information that is available, however, suggests that pesticide levels in ground water, like those in large rivers and lakes, tend to provide little reason for concern about human health. This is particularly true for exposure periods that are limited to one year or less. Most information is available on pesticide levels in large rivers and lakes. Dilution in these large water bodies has most likely played a significant role in bringing about the generally low levels of pesticides measured in them.

We made no attempt to critique the sampling or detection methods used for the reported concentrations. When one or more reported values were substantially higher than the bulk of the reported measurements for a given pesticide, we did look at the high values more carefully to be sure that there were no obvious errors, such as in the incorrect reporting of units (e.g., µg vs mg). We also looked at the original article to see what events led to such a high level, and we evaluated the feasibility of the highest concentrations in light of the pesticide's water solubility. In some cases (e.g., DDT), it is possible to have concentrations in natural waters that exceed the reported solubility of the pesticide, which is usually measured in distilled water.

Pesticide Production and Use Data

Based on world pesticide sales in 1982 (see Table 3), the U.S. is the largest single pesticide market in the world (33%). Western Europe (24%) is in second place, followed by Japan (11.5%) and Eastern Europe (9%). The developing countries account for the remaining 22.5% of world agrochemical sales. Brazil is the largest of the developing-country markets, accounting for approximately 7% of world sales, with India and Mexico each accounting for almost 2%. Although about 67% of the world market is in the agriculturally developed countries, the developing countries, nonetheless, are quite active in the manufacture of the active ingredients in pesticides.

As shown in Table 3, 50% of world herbicide sales are concentrated in the U.S. The insecticide and fungicide markets, however, are mostly in other parts of the world. Western Europe for instance, comprises 40% of the world fungicide sales. Likewise, the developing countries account for 40% of the world insecticide market.

Table 3. Worldwide pesticide sales by geographical area - 1982.2

	Pesticides									
Area	Herbicides	Insecticides	Fungicides	Other ^a	Total					
% of total sales										
USA	50	26	11	41	33					
Western Europe	20.5	14.5	40	39	24					
japan	9.5	12.5	16	2.5	11.5					
Eastern Europe	8.5	7	12.5	7	9					
Rest of world	11.5	40	20.5	10.5	22.5					

a Nematocides, fumigants, and plant growth regulators.

These global differences in the pesticide market reflect the diversification of agriculture throughout the world. Seven crop sectors account for over 75% of the total worldwide market in agrochemicals (see Table 4). Maize requires the largest use of herbicides. It is also a major U.S. crop that greatly contributes to the high use of herbicides in the U.S. Insecticides, on the other hand, are used mostly for cotton, fruit, and vegetables. These crops are widely grown in the developing countries, the largest insecticide market in the world. Similarly, Western Europe, with the bulk of world fungicide sales, cultivates 70% of the vineyards in the world.

Aside from these broad pesticide usage patterns, little information exists concerning actual consumption and production within individual countries. Predicting which specific pesticides are most likely to be used in a given country is complicated by several factors, among which are the diversification of crop type from locale to locale, the great variation in kinds of pesticides used on a given crop, and the cost of the pesticides. In fact, cost generally dictates the selection of pesticides, especially in the poor, developing nations. Changing agricultural practices, regulatory restrictions, and resistance of pests to insecticides increase the variability of worldwide pesticide use. Thus, if troops were entering an agricultural area where pesticide contamination of the water would be likely, it would not be possible to predict which pesticides were being used without very recent, local information.

Assorted sales and use data on insecticides in Egypt, India, Brazil, China, and the U.S. are presented in Tables 5 through 9, respectively. It is not surprising to find that the insecticides most frequently appearing in the monitoring data (DDT, BHC, and lindane)

Table 4. Worldwide® pesticide sales for selected crops.2

		<u>Pesticides</u>	
Target crop	Herbicides	Insecticides	Fungicides
		Sales (millions of 1982	dollars)
Fruit and vegetables (includes vines)	425	1160	1300
Maize	1140	440	40
Rice	490	645	380
Cotton	325	10 20	40
Soybeans	980	130	50
Wheat	650	100	345
Sugar beets	315	105	45

a Accounts for over 75% of the total worldwide market in agrochemicals.

are large-production chemicals as well. Although these particular chlorinated hydrocarbons are no longer widely produced in the U.S., they are still produced and used throughout the rest of the world. However, the demand for them is expected to remain static until the mid-1980's, and then decline thereafter (see Table 10). Conversely, carbamates and organophosphorus compounds are expected to increase substantially on a worldwide basis.

Herbicide and fungicide demand is also expected to increase throughout the world. Both North America and Western Europe are expected to double their use of these chemicals by the 1990's (based on 1975 figures). In other regions of the world, the demand for herbicides in the 1990's will grow by as much as eight times the amount used in 1975.

Health Incidents from Pesticide Contamination of Water

Our literature searches uncovered a compilation of reported incidents of acute pesticide poisoning due to occupational exposures and accidentally contaminated grains and other foods. ¹⁰ However, there are relatively few documented cases of acute health effects due to pesticide-contaminated drinking water. Virtually all of the reports are from the United States. Those reported incidents related to pesticide-contaminated water were examined more closely and are summarized in Table 11.

Table 5. Amounts of major insecticides imported and used in Egypt (1950 to 1980).3

Compound	Imported quantity (metric tons)	Years of consumption
Toxaphene	54,000	1955 to 1961
Endrin	10,500	1961 to 1981
DDT	13,500	1952 to 1971
Lindane	11,300	1952 to 1978
Carbaryl	21,000	1961 to 1978
Trichlorphon ^a	6,500	1961 to 1970
Monocrotophos	8,300	1967 to 1978
Leptophos	5,500	1968 to 1975
Chlorpyrifos	9,500	1969 to 1981
Phosfolan	4,500	1968 to 1981
Mephosfolan	6,000	1968 to 1981
Methamidophos/Azinphos - methyl	4,500	1970 to 1979
Triazophos	3,500	1977 to 1981
Profenofos	4,000	1977 to 1981
Methomyl	3,500	1976 to 1981
Fenvalerate	4,500	1976 to 1981
Cypermethrin	2,300	1976 to 1981
Decamethrin	1,400	1976 to 1981

^a Nonproprietary name used in Great Britain for trichlorfon.

Unfortunately, descriptions of the events leading to the water contamination were not available for all of the incidents listed in Table 11. However, it can be seen from the descriptions that are available that at least some of the ways in which the water became contaminated (e.g., back-siphoning or deliberate contamination) do not appear to be related to the specific pesticide. The same incident just as easily could have taken place with a different pesticide.

The literature confirmed that pesticides occasionally find their way into drinking water at toxic levels. The available information did not suggest that any single pesticide or class of pesticides causes repeated, acute outbreaks from the contamination of drinking-water supplies. It should also be noted that nausea, vomiting, abdominal pain, and diarrhea are commonly reported as the health effects attributed to

Table 6. Production of technical-grade pesticides in India (1978 to 1981).4

	Quantity (metric tons)					
Compound	1978 to 79	1979 to 80	1980 to 81			
внс	35,254	31,806	28,760			
DDT	4,478	4,531	4,004			
Malathion	2,845	2,136	1,264			
Parathion	2,242	2,552	1,213			
Metasystox	208	139	150			
Fenitrothion	401	350	116			
Dimethoate	721	804	817			
Phosphamidon	563	5 85	451			
DDVP (Dichlorvos)	278	218	103			
Quinalphos	379	546	385			
Phenthoate	11		0.6			
Carbaryl	76 7	1,501	1,155			
Endosulfan	36	133	496			
Monocrotophos	46	171	338			
Fenthion			54			
Copper oxychloride	1,199	1,199	1,147			
Thiocarbamates		1,733	1,159			
Nickel chloride	48	12	39			
Organomercurials	130	135	179			
Carbendazim (bavistin)	25	27	28			
Basalin	44 000	2	13.5			
2,4-D	316	192	3 38			
Nitrofen propanil	25	109	1.5			
Paraquat	48	402	73			
Ratafin	13	11	3			
Cycocel			4.6			
Zinc phosphide	170	158	197			
Aluminum phosphide	591	249	710			
Methyl bromide	34	19	33			
Ethyl dibromide	40	20	25			
Antibiotics		15	4.7			

Table 7. Amount of imported and nationally produced insecticides during 1979 to 1981 for Brazil.⁵

		Year			Year	
Insecticides	1979	1980	1981	1979	1980	1981
(common name)	1	mported (tor	ıs) ^a	Natio	nally produc	ed (tons)a
Aldicarb	2,046	1,055	1,006			
Aldrin	962	1,026	725		***	***
B. thuringiensis	177	279	17		***	
BHC	***			3,230	4,099	2,070
Carbaryl	1,955	1,438	276	-		-
Carbofuran	440	396	433			***
Carbophenothion	205	140	189	***	=	
Camphechlor (Toxar	ohene)		-	3,893		
Chlorpyrifos	411	513	421			
DDT	·			4,444	2,752	1,818
Diazinon	144	122	134		-	***
Dichlorvos	100	· 70	190			
Dicrotophos				450	462	190
Dimethoate	1,025	210	40	20	373	225
Disulfoton	478	220	314			
Endosulfan	1,050	1,200	307	wa 444		
Endrin	1,474	459	215		***	
Parathion	255			347	224	96
Fenthion	140	95	20			119
Heptachlor	339	259	379	aud 4mm		
Malathion				1,170	364	787
Demeton, methyl	145	272	44. 450	-,		158
Parathion, methyl	3,484	2,871	1,507	3,484	2,871	1,507
Mineral oil	3,018	2,500	-,		529	1,514
Monocrotophos		~-		2,200	2,396	938
Omethoate	85	143	140	-,	-,000	
Phorate	145	76	198			
Phosphamidon	240	110	80		wa esta	***
Trichlorfon	668	464	183	653	1,126	891
Wettable sulfur	2,223	2,682	239		225	2,325
Other	36	83	81	-		-,
Total	18,795	16,165	5,945	19,891	15,421	13,233

^a To convert to metric tons, multiple these values by 0.907.

Table 8. Insecticide production and use in China for 1982.6

Insecticide	Quantity (tons)a
ВНС	200,000
Lindane	2,000
DDT	10,000 to 20,000
Trichlorphon	50,000
Malathion	50,000
Methyl/ethyl parathion	25,000
Dimethoate	small
Systox	300
Carbaryl	300
Fenitrothion	small
	·

^a To convert to metric tons, multiply these values by 0.907.

Table 9. U.S. insecticide use on corn, rice, cotton, soybeans, and wheat. 7,8

		Year	
Compound	1966	1976	1982
		Millions of poundsa	
Toxaphene	28.6	29.2	5.6
DDT	19.9		
Aldrin	14.2		
Methyl parathion	7.3	22.1	10.4
Parathion	4.4		
Carbofuran		10.3	5.3
EPN		6.2	
Carbaryl		5.8	
Phorate		5.8	
Terbufos			8.7
Fonophos			5.1

^a To convert to metric tons, multiply these values by 4.54×10^{-4} .

Table 10. Changes in demand for types of insecticides by main user regions (1975 to 1990).9

		1975			1990 (est	:.)
	North America	Western Europe	Other regions	North America	Western Europe	
			Millio	ns of dollar	3	
Organophosphates	290	220	590	750	400	1300
Carbamates	120	90	260	320	170	560
Chlorinated hydrocarbons	68	50	202	30	30	140
Nonchemical insecticides	15	5	20	100	50	50
Arsenic-based compounds	7	10	3			
Total	500	375	1075	1200	650	2050

pesticide-contaminated water (see Table 11). Nevertheless, nonspecific effects such as these can be expected to be underreported, particularly in areas where microbial contamination of local drinking-water supplies is common. In addition, there are many reports of acute outbreaks of such health effects where the drinking water has been the suspected source of an unidentified causative agent. Some of these outbreaks could have been caused by pesticides. Thus, while it does not appear that pesticide contamination of drinking water is a common occurrence, we should be cautious in concluding that it is as infrequent as the few well-documented reports suggest.

PESTICIDES OF MOST CONCERN AS CONTAMINANTS IN FOREIGN WATER SUPPLIES

The results of the two-stage evaluation to identify and characterize the most serious pesticide hazards are described below. The primary screening identified ten pesticides that warranted further scrutiny. The evaluations of the ten individual pesticides constitute the secondary screening and follow the discussion of the primary screening step.

Primary Screening

Table 12 presents data and lists the 50 pesticides for which we found monitoring data in the open literature. The underlined pesticides are those that met the criteria for

Table 11. Health incidents from pesticides in water.

Pesticide	Source of water contamination	Health effects	Concentration	Ref.
Arsenic mix	Groundwater contamination from waste disposal	Nausea, burning of mouth, pares- thesia, weakness of extremities	10 to 21,000 μg/L	11
Sodium arsenite	Leachate from lawn	Vomiting, stomach pains	125 mg/L	12
Dieldrin	Leachate from farms	Cancer (lymphoma)	0.5 to 65 ng/L	13
Chlordane	Back- siphonage	Abdominal pain, eye irritation	1,200 mg/L	14,15
Chlordane	Deliberate poisoning	Abdominal pain, eye irritation	6,600 µg/L	16
Organo- phosphates	Unknown	Unknown	Unknown	17
Unknown herbicide	Treatment of lawn	Headache, vomiting, dizziness	Unknown	18
Methyl parathion	Uncertain	Death in 2 of 7 children, lethargy, increased salivation and respiratory secretions, pinpoint pupils. ^a	138 to 275 μg/L ^b	19

^a Originally diagnosed as viral gastroenteritis.

further evaluation; that is, the maximum reported concentration exceeded either the ADI-based screening concentration or the LD50-based screening concentration. Presumably, the pesticides that are not underlined are unlikely to be found at levels that threaten health, even for long-term exposure. Similarly, the pesticides that are not underlined are considered unlikely to be found at levels that would cause performance degradation in troops.

b Concentrations measured in water containers in house of affected children.

Table 12. Primary screening list.a

Aldring 1.80 0.0001 0.5 39 3.9 Bayluscide 0.00 — — — — — Benthiocarth 10.00 — — — — — BHC 2360.00 —	Pesticide	Maximum reported concentration (µg/L)	AD[²¹ [mg/(kg•d)]	ADI-based screening concentration (µg/L)	Rat oral LD5022 (mg/kg)	LD50-based screening concentration (µg/L)
hiocarb 0.00 1903 hiocarb 10.00 1903 hiocarb 10.00 1903 hiocarb 10.00 1903 hiocarb 10.00 1903 hibbar 830.00 177 hibbar 930.00 187 hibbar 930.00 187 hibbar 930.00 188 hibbar 1.03 0.0075 hibbar 1.03 0.	Aldrin	1.80	0.0001	0.5	39	3.9
hiocarb 10.00 1903 Ata- 830.00 177 Ata silfan	Bayluscide	0.00	1		1	1.
that 2360.00 —	Benthiocarb	10.00	1	1	1903	190.3
Ma- 830.00 — — 177 ta- 830.00 — — 6000 mma-(lindane) 1920.00 0.01 466.7 76 ard 0.00 0.1 466.7 2500 ard 0.00 0.01 46.7 250 aryl 0.00 0.01 46.7 250 rdane 0.00 0.01 46.7 250 rdane 0.00 0.001 47.7 253 rdane 0.00 0.002 93.3 700 rdane 0.00 0.002 93.3 700 rdane 0.00 0.002 93.3 10,800 rdane 0.00 0.005 23.3 87 rdane 0.005 0.005 23.3 87 rdane 0.005 0.005 0.005 0.005 rdane 0.006 0.006 0.006 0.006 0.006 rdane 0.007 0.006	BHC	2360.00	1	1		
ta-findane 830.00 — 6000 mma-(lindane) 1920.00 0.01 46.7 76 afol 0.00 0.1 466.7 2500 aryl 0.40 0.01 46.7 250 aryl 0.00 0.01 46.7 250 cdane 0.00 0.001 4.7 283 cdane 0.00 0.001 4.7 283 cobenzilate 0.00 0.02 93.3 700 cobenzilate 0.02 0.3 1400 370 0 0.22 0.3 1400 370 0 0.02 0.3 1400 370 0 0.02 0.005 23.3 87 0 0.02 0.005 0.005 0.00 0 0.00 0.005 0.00 0.00 0 0.00 0.002 9.3 0.0 0 0.00 0.004 0.5 0.0	alpha-	830.00	1	!	177	17.7
mma-(lindane) 1920.00 0.01 46.7 76 atol 0.00 0.1 466.7 2500 an 0.00 0.01 466.7 2500 aryl 0.40 0.001 47 283 rdane 0.00 0.001 4.7 283 rdane 0.00 0.001 4.7 283 rdane 0.00 0.001 4.7 283 rdane 0.00 0.002 93.3 700 rdane 0.00 0.02 93.3 700 rdane 0.00 0.02 93.3 10,800 rdane 0.02 0.03 1400 370 rdane 0.02 0.03 113 0.00 rdane 0.02 0.005 0.005 0.00 0.00 rdane 0.00 0.002 9.3 66 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	beta-	830.00	1	•	0009	0.009
afol 0.00 0.1 466.7 2500 aryl 0.40 0.01 465.7 9000 aryl 0.40 0.001 46.7 250 defane 0.00 0.001 4.7 283 — 0.10 — — — — — — — — — — — — — — — — — — —	gamma-(lindane)	1920.00	0.01	46.7	76	7.6
an 0.00 0.1 466.7 9000 aryl 0.40 0.01 46.7 250 rdane 0.00 0.001 46.7 250 rdane 0.00 0.001 46.7 250 rdane 0.00 0.001 46.7 283 ra trans- 0.50	Captafol	0.00	0.1	466.7	2500	250.0
aryl 0.40 0.01 46.7 250 cdane 0.00 0.001 4.7 283 cdane 0.00 0.001 4.7 283 cdane 0.00 0.001	Captan	0.00	0.1	466.7	0006	0.006
rdane 0.00 0.001 4.7 283	Carbaryl	0.40	0.01	46.7	250	25.0
ta trans- 0.10	Chlordane	0.00	0.001	4.7	283	28.3
ta trans- 0.50	cis-	0.10	!	!	}	
robenzilate 0.00 0.02 93.3 700 16.67 — — 10,800 0 0.22 0.3 1400 370 U 0.02 — — — 1-DDT 0.95 — — — 1-DDT 0.95 — — — 1-DDT 0.05 — — — 1-DDT 0.06 — — — 1-DDD 0.06 — — — 1-DDE 0.03 — — — 1-DDE 0.03 — — — 1-DDE 0.00 0.00 — — — 1-DDE 0.00 0.00 — — — 1-DDE 0.00 0.	beta trans-	0.50	ł	1	}	;
16.67 — 10,800 0 0.22 0.3 1400 370 U 0.022 — — — DDT 0.025 — — — 1500.00 0.095 — — — 100.00 — — — — 100.00 — — — — 100.00 — — — — 100.00 — — — — 100.00 — — — — 100.00 — — — — 100.00 — — — — 100.00 — — — — 100.00 — — — — 100.00 0.000 0.000 0.000 0.000 100 0.000 0.000 0.000 0.000 100 0.000 0.000 0.000 0.000	Chlorobenzilate	0.00	0.02	93.3	200	70.0
J 0.22 0.3 1400 370 ODT 0.02 -DDT 0.95 -DDD 1060.00 -DDD 0.06 -DDE 2100.00 -DDE 0.03 -DDE 0.03 -DDE 0.03 -DDE 0.00 -DDE 0.03	CNP	16.67	!	1	10,800	1080.0
T 1500.00 0.005 23.3 87 87 87 87 87 87 87 87 87 87 87 87 87	2,4-D	0.22	0.3	1400	370	37.0
T 0.95 23.3 87 T 0.95	DWGG	0.02	1	1		1
D 1060.00 113 113 113 113 113 113 113 113 113 113 113 113 113 113 113 113 113 118.7 118	p.p'-00T	1500.00	0.002	23.3	87	8.7
E 2100.00 113 E 2100.00 880 E 0.03 880 0.00 0.002 9.3 66 0.00 0.004 18.7 32 1.03 0.0001 0.5 40 0.08 0.02 93.3 152 2.40	o,p. – Idua GGG :	0.95	}	!	1	-
E 2100.00		1060.00	1	1	113	11.3
E 2100.00 680 E 0.03 66 60.00 0.002 9.3 66 0.00 0.004 18.7 32 1.03 0.0001 0.5 40 0.08 0.02 93.3 152 2.40 2.40	١.	0.06	1	1	1	:
E 0,03 — — — 60.00 0.002 9.3 66 0.00 0.004 18.7 32 1.03 0.0001 0.5 40 e 0.08 0.02 93.3 152 0.55 0.0075 35 18 5.80 — — — 2.40 — — —		2100.00	1	1	880	88.0
60.00 0.002 9.3 66 0.00 0.004 18.7 32 1.03 0.0001 0.5 40 e 0.08 0.02 93.3 152 0.55 0.0075 35 18 5.80 2.40	o,puue	0.03	1	1	1	ł
0.00 0.004 18.7 32 1.03 0.0001 0.5 40 e 0.08 0.02 93.3 152 0.55 0.0075 35 18 5.80 2.40	Diazinon	60.00	0.002	9.3	99	9.9
1.03 0.0001 0.5 40 0.08 0.02 93.3 152 fan 0.55 0.0075 35 18 - 5.80	Dichlorvos	0.00	0.004	18.7	32	3.2
0.08 0.02 93.3 152 0.55 0.0075 35 18 5.80 2.40	Dieldrin	1.03	0.0001	0.5	\$	4.0
0.55 0.0075 35 18 5.80 2.40	Dimethoate	0.08	0.02	93.3	152	15.2
5.80 2.40	Endosulfan	0.55	0.0075	35	18	- C
	-eqdre	5.80	!	1	1	1
	beta-	2.40	1	1	1	ł

Table 12. (Continued)

Pesticide	Maximum reported concentration (µg/L)	ADI ²¹ [mg/(kg•d)]	ADI-based screening concentration (µg/L)	Rat oral LD5022 (mg/kg)	LD50-based screening concentration (µg/L)
Endrin	1.50	0.0002	. 0.9	co.	0.3
EPN	0.00	1	1	∞	0.8
Fluometuron	540.00	1	•	8900	890.0
Fluridone	50.00	1		1	1
Heptachlor	0.70	0.0005	2.3	40	4.0
epoxide	0.04	0.0005	2.3	47	4.7
Hexachlorobenzene	0.14	!	1	10,000	1000.0
Leptophos	13.47	0.001	4.67	30	3.0
Malathion	1600.00	. 0.02	93.3	370	37.0
Methoxychlor	0.00	!	1	q000s	200.0
Mevinphos	0.00	0.0015	7	က	0.3
Monocrotophos	0.00	90000	2.8	80	0.8
Oxadiazon	1.95	1	1	3500	350.0
Parathion	0.07	0.00	23.3	Z	0.2
Parathion, methyl	0.17	0.001	4.7	9	9.0
PCP-Na	0.00	1	;	ł	!
Phosphamidon	110.00	0.001	4.7	15	1.5
Toxaphene	20.90	1	1	4	4.0
Trifluralin	0.80	!	-	2000p	500.0
Trithion	0.00	•	1	7	0.7

^a Underlined pesticides are those identified for further screening, based on monitoring data being in excess of either the ADI-based or LD50-based screening concentration.

^b Oral LD50 for mouse.

Taste and odor thresholds (see Appendix B) were compared to maximum reported concentrations in water (see Appendix C and Table 12). Threshold concentrations were not available for all pesticides reported in our monitoring data base. However, the pesticides which were present at levels exceeding their taste or odor threshold included DDT, lindane, malathion, and methyl parathion.

Secondary Screening

The following section states the results of the secondary screening of the ten pesticides identified in the primary screening. The section describes the events leading to the presence of each subject pesticide in water, characterizes each exposure (e.g., level and duration), and discusses the probable consequences of the exposure. The pesticides evaluated include aldrin, DDT (including DDE and DDD), diazinon, dieldrin, endrin, leptophos, lindane (including other BHC isomers), malathion, phosphamidon, and toxaphene.

Aldrin. Aldrin is a broad-spectrum, nonsystemic soil insecticide.²³ It readily oxidizes to dieldrin, its main metabolite.²⁴

Although aldrin is no longer produced in the U. S., it is still used here in deep ground insertions for termite control, nursery dipping of roots and tops of nonfood plants, and fabric mothproofing when there is no effluent discharge. Previously, however, the major U.S. agricultural use had been for control of soil insects that damage corn and citrus crops. Its use on food crops has since been cancelled on the basis that it may cause severe environmental damage and is a potential carcinogen. Outside the U.S., aldrin is still widely used on corn, root crops, sugar cane, and fruit crops. In addition, it is also used for seed treatment.

In the open literature, the reported concentrations of aldrin in water ranged from 0 to 1.8 μ g/L (see Appendix C). The typical average value for detected samples was less than 0.5 μ g/L. The highest value (1.8 μ g/L) was detected in Malaysian paddy water, as were the majority of high concentrations²⁷. Unfortunately, the author did not give an explanation for these values. Given aldrin's water solubility of up to 180 μ g/L (at 25°C), it is reasonable to believe that the monitored values do exist.

Aldrin is a persistent chlorinated-hydrocarbon insecticide. Since it is used primarily as a soil insecticide, it enters water systems by way of soil erosion and sediment transport. Aldrin is rapidly converted to dieldrin and remains persistent in the environment in that form. Studies have shown that the conversion of aldrin to dieldrin in river water was 80% complete after 8 wk. In soils, residues of aldrin may persist for

years. In one study, 26% aldrin remained after 1 y, 5% after 3 y. 30 Other studies show a 75 to 100% disappearance from soils in 1 to 6 y. 31 Furthermore, aldrin has little tendency to volatilize or leach and thus tends not to move away from the treated area. 32 In soils, the major route of breakdown of aldrin is by microbial degradation. 30 In aquatic environments, biotransformation, volatilization, bioaccumulation, and indirect photolysis appear to be involved in the degradation of aldrin. 29

For a 70-kg individual who drinks 15 L of water per day, we estimated the dose-response (concentration in water ~ dose [mg/(kg • d)] x 70 kg/15 L of water per day) of aldrin in water. As can be seen in Table 13, the maximum concentration reported in the open literature (1.8 μ g/L) and the solubility of aldrin in water (up to 180 μ g/L at 25°C) are well below the no-effect level (1000 μ g/L). Hence, although aldrin persists in the environment, reported concentrations do not approach levels that might be harmful to military personnel. The International Agency for Research on Cancer (IARC) evaluated the carcinogenicity of aldrin and found two studies on rats to be negative and two to be inadequate; a fifth study on mice was also judged to be inadequate. A study on exposed workers was judged insufficient to allow conclusion of excess cancer risk. 36

<u>DDT</u>. Technical DDT is a mixture including about 70 to 73% of the p,p'-isomer, 12 to 21% of the o,p'-isomer, and a small amount (about 0.01 to 6%) of the o,o'-isomer. ²⁹ DDT can degrade in the environment to DDD and DDE. Most monitoring data are available for the p,p'-isomer, but there is also a relatively large amount of data on the o,p'-isomer and on DDD and DDE.

Although DDT was banned from large-scale use in the United States in 1973, large amounts of it are still used for insect control in many parts of the world. It is used on many crops and is applied directly to water for mosquito eradication in the malaria control programs of many countries.

The DDT concentration reported in various waters from around the world are, with very few exceptions, less than 1 µg/L. One study reported finding DDT at 1500 µg/L in a rural pond in India.³⁷ This is more than 10 times greater than the next highest average reported concentrations, which are from the Seyhan Delta of Turkey (see Appendix C, Table C-18). The highest levels of DDT are usually reported following storms^{37,38} and are probably related to the sediment burden of the runoff.³⁹

The generally low levels reported for DDT concentrations are consistent with the extremely low solubility of DDT in water. Reports of DDT solubility in water vary from >1.2 to $85 \,\mu\text{g/L}$. Levels in natural waters containing organic material can greatly exceed the levels soluble in distilled water 40 , or DDT may be present in water as an

Table 13. Dose-response data for aldrin.

Food contaminant	Water concentationb	P. company of C	D-6
[mg/(kg•day)]	(μg/L)	Response ^C	Ref.
0.0001 ^d	0.47	Acceptable Daily Intake (ADI)	21, 33
0.20	930	No effect (dog)	34
0.2	1000	No-clinical-effects level (2 y)	34
8.2	38,000	Death (child)	34
14.0	65,000	Central nervous system problems	30
25.6	120,000	Acute convulsive poisoning	34
56.0	260,000	Death	30
65.0	300,000	Estimated median lethal dose	26

a Water concentration is calculated from the food-contaminant dose on the basis of a 70-kg adult consuming 15 L/d of field water.

emulsion rather than in a truly dissolved form. The report of 1500 μ g/L did not describe the sampling or analytic methods used, nor did it offer any explanation of how such a high level was attained.

Table 14 shows water concentrations that would deliver acutely toxic doses of DDT if 15 L of water was consumed daily by a 70-kg adult. The acutely toxic concentrations are about 10,000 times higher than typical DDT concentrations reported in the literature. The concentration that corresponds to the Acceptable Daily Intake (ADI) for DDT is $23 \mu g/L$ and is higher than most of the concentrations reported in the literature, which are predominantly below $1 \mu g/L$.

However, as the DDT levels in the pond water from India indicate, very high concentrations may be present in some situations. As can be seen in Table 14, the $1500-\mu g/L$ concentration reported from the pond is well below the concentration associated with an acutely toxic dose (28,000 $\mu g/L$). It is even somewhat lower than the concentration associated with a dose that was tolerated for 600 d (2300 $\mu g/L$) without

b Maximum water concentration reported: 1.8 μ g/L (see Appendix C); solubility of aldrin in water: up to 180 μ g/L at 25°C.

C Human dose-response unless otherwise indicated.

d No separate ADI for man has been set for aldrin, although a total dieldrin and aldrin ADI for man of 0.0001 mg/kg body weight has been recommended.

43

43

43

Table 14. Dose-response data for DDT.

Equivalent expressions for dose⁸

6

10

16

		_	
Food contaminant [mg/(kg•day)]	Water concentration ^b (µg/L)	Response ^C	Ref.
0.005	23	Acceptable Daily Intake (ADI)	21, 41
0.5	2,300	No clinical effects after >600-d exposure	42

Smallest dose with clinical effect:

No signs of poisoning below this dose

nausea, headache, perspiration

in healthy people

Convulsions appear

28.000

47,000

75,000

producing clinical effects, although increased body storage of DDT was detected.⁴² DDT has been tested for carcinogenicity in several animal species, and some of these tests produced positive results (e.g., in mice).³⁶ Human data were not considered by IARC to be sufficient to support a conclusion.³⁶

Because of the low water solubility of DDT and the low human toxicity of DDT, it appears that the probability is low that DDT in drinking water will cause acute or chronic health problems in troops. However, one caveat to this conclusion is that unpredictably high levels of DDT may arise following its direct application to water for such purposes as mosquito control. In such uses, DDT may be present as an emulsion, may be floating on top, or may be adsorbed by organic matter in the water.

<u>Diazinon</u>. Diazinon is a nonsystemic, broad-spectrum insecticide/acaricide.²³ Its main metabolites are diazoxon, hydroxydiazinon, pyrimidinol, and hydroxypyrimidinol.⁴⁴

a Water concentration is calculated from the food-contaminant dose on the basis of a 70-kg adult consuming 15 L/d of field water.

b Maximum water concentration reported: 1500 μ g/L (see Appendix C); solubility of DDT in water: >1.2 to 85 μ g/L.²⁹

C Human dose-response unless otherwise indicated.

Several uses for diazinon are described in two reports addressing agricultural chemicals and pesticides. 23,24 For example, in the U.S., diazinon is used on various fruits, vogetables, root crops, and vineyards for the control of sucking and lear-eating insects. It is also used for seed treatment and as a soil preplanting insecticide. Diazinon is often used in veterinary practice for flea, lice, tick, and fly control. It is also used to treat cracks and crevices for insect control. Outside the U.S., diazinon is used for the control of stemborers and leafhoppers in rice. It is also used for ectoparasites (e.g., mange, blowfly) on livestock.

Based on studies reported in the open literature, it appears that diazinon is seldom detected in water samples (see Appendix C, Table C-19). The highest reported occurrence of diazinon was in rice paddy water in Iran. However, this study was conducted for experimental purposes to assess the breakdown rate of diazinon in rice fields. A maximum concentration of 60 μ g/L was detected immediately after application. However, by the tenth day, no diazinon remained in the water. The maximum concentration (60 μ g/L) is well below diazinon's water solubility of 40,000 μ g/L (at 20°C).

Diazinon is considered to be a moderately persistent pesticide. It usually enters water systems by means of leaching or surface runoff. However, aquatic systems remote from target areas are unlikely to be adversely affected, unless heavy rainfalls occur shortly after application. The half-life of diazinon varies with pH values. For instance, at pH 3.14 the half-life in water was 0.5 d, while at pH's of 7.4 and 10.9, the half-life was 185 and 6 d, respectively. Therefore, it appears that at high or low pH, diazinon has a short half-life; however, at a neutral pH it has a long half-life. In soil, the half-life of diazinon ranges from 2 to 6 wk. Cenerally, after six months, less than 10% of diazinon still remains. Contamination of soil occurs either by direct application as soil insecticide or by runoff from treated plants. Diazinon does not move freely in soil with water, and loss by leaching does not appear to be a major factor in its disappearance from soil. Instead, the primary pathway of degradation in both soil and water is hydrolysis.

As can be seen in Table 15, the maximum concentration detected in world monitoring studies (60 μ g/L) is below toxic levels (assuming that a 70-kg human consumes 15 L of water per day.) Given its typical concentrations and its persistence in water (half-life = 14 d at pH 6.0), diazinon does not appear likely to cause poisoning of military personnel. Data from chronic oral-toxicity studies do not suggest that diazinon is oncogenic.⁴⁷

<u>Dieldrin</u>. Dieldrin is a nonsystemic soil insecticide. No data on water metabolites were found. However, Sanborn <u>et al.</u> 48 state that dieldrin itself is one of the most persistent chlorinated pesticides.

Table 15. Dose-response data for diazinon.

Equivalent	expressions	for	dosea
------------	-------------	-----	-------

Food contaminant [mg/(kg•day)]	Water concentrationb (µg/L)	Response ^C	Ref.
0.002	9	Acceptable Daily Intake (ADI)	21,33
0.020d	93	No effect	34
0.05	230	Minimal effect, 40% depression of plasma cholinesterase	46
11	51,000	Severe poisoning	34
90 to 444	420,000 to 2,000,000	Death	34

a Water concentration is calculated from the food-contaminant dose on the basis of a 70-kg adult consuming 15 L/d of field water.

Preharvest uses of dieldrin include soil treatment against various insects, and seed treatment of grains, sugar beets, leeks, and onions. In addition, dieldrin is used in foliar treatment of agricultural crops, fruits, nursery stocks, and ornamentals. In tropical and subtropical regions, dieldrin controls disease vectors and locusts. The worldwide use pattern of dieldrin has changed considerably during the last few years because of restrictions in many countries. Therefore, it is difficult to assess the areas of greatest use.

In comparison with other pesticides, many water-concentration values were reported for dieldrin in the open literature. For example, average reservoir-water levels in Israel range from "not detected" to $0.0002~\mu g/L$, and groundwater levels in Egypt ranged from "not detected" to $0.3~\mu g/L$. The highest level of dieldrin, $1.03~\mu g/L$, was found in drinking waters in the Virgin Islands. According to the authors of the article in which this concentration was reported, the "water may be imported from areas like Puerto Rico, where insecticide use is probably more common." The next highest value,

b Maximum water concentration reported: 60 µg/L (see Appendix C); solubility of diazinon in water: 40,000 µg/L.

^C Human dose-response unless otherwise indicated.

d Some poisoning episodes, either in connection with formulations, or with the susceptibility of children, or both, cast doubt on this conclusion.

0.5 μ g/L, was found in canal water in Malaysia. The solubility of dieldrin in water is 186 μ g/L. Therefore, it is reasonable to assume that a maximum concentration of 1.03 μ g/L or higher could be attained in the aquatic environment.

As mentioned earlier, dieldrin is one of the most persistent chlorinated pesticides. Few data are available on the biodegradation of dieldrin. We do know that the biodegradation process is very slow and may be the ultimate loss process in sediments. In contrast, volatility (half-life of a few days or hours) and photolysis (half-life of 2 mo) are the principal processes that remove dieldrin from aquatic systems. 29,52 Processes such as oxidation and hydrolysis do not significantly affect that fate of dieldrin.

Health effects in humans from exposure to dieldrin have been investigated. $^{53-55}$ Hunter et al. 55 found that patients given 0.211 mg/(kg·d) of dieldrin for two years did not show any clinical effects (e.g., body weight, clinical chemistry, and hematological findings, including plasma alkaline phosphatase and EEG changes). Assuming that a 70-kg man drinks 15 L of water per day, 0.211 mg/(kg·d) corresponds to 980 µg/L (see Table 16). In addition, Jager found that men in the workplace could tolerate 0.0332 mg/(kg·d) (corresponding to 155 µg/L) for up to 15 y. WHO's 1977 Acceptable Daily Intake (ADI) is 0.0001 mg/kg, corresponding to 0.47 µg/L. Dieldrin produced liver tumors in mice, and this has been confirmed in several studies. Tests on other species and human epidemiology studies were considered inconclusive.

The highest concentration reported in the literature (1.03 µg/L) is at or below the no-effect concentrations listed in Table 16. Thus, ingesting water with the highest concentration of dieldrin found is not expected to cause adverse effects. Convulsions, followed by recovery, were observed at 23 mg/[kg•d], corresponding to 107,000 µg/L (again assuming that a 70-kg human drinks 15 L of water per day). However, this value exceeds the maximum solubility value for dieldrin (186 vs 107,000 µg/L). Typical dieldrin levels appear more likely to be near the median, 0.008 µg/L (antilog of the mean of the natural logarithms of the highest reported values, see Appendix C, Table C-20), which is well below the level corresponding to the ADI. Therefore, dieldrin in drinking water is not considered likely to endanger the health or performance of military personnel.

Endrin. Endrin is a nonsystemic insecticide. Patil et al. 56 obtained an unknown metabolite of endrin in a 36% yield from marine fish-pond water. Unfortunately, no other water metabolite data are available.

Endrin is used mainly on field crops and in particular on cotton.⁵¹ It is also used for rice, small cereal grains, and sugar cane.⁵⁷ Endrin is effective against a wide range of insect species. In addition, endrin is used as a soil insecticide.²³

Table 16. Dose-response data for dieldrin.

Equivalent expr	essions for dosea	_	
Food contaminant [mg/(kg•day)]	Water concentration ^b (µg/L)	Response ^C	Ref.
0.0001	0.47	Acceptable Daily Intake (ADI)	49
0.0332	155	Tolerated for 15 y	50
0.211	980	No clinical effect level (2 y)	55
23	107,000	Convulsions, child (with recovery; single dose)	34
65	303,000	Death	26

a Water concentration is calculated from the food-contaminant dose on the basis of a 70-kg adult consuming 15 L/d of field water.

Concentrations of endrin reported in the open literature came from a variety of water types. In many of the waters around the world, endrin is undetectable. However, when detected, values typically are less than $0.012\,\mu\text{g/L}$. The highest concentration, $1.5\,\mu\text{g/L}$, was found in Nile River water at Giza in Egypt (see Appendix C). Unfortunately, the authors did not explain the source of the pesticide. Because the solubility of endrin is $230\,\mu\text{g/L}$, 58 it is reasonable to believe that the maximum reported level or even greater could be attained in water.

Many aspects of the fate of endrin are unknown. For example, no information is available on the oxidation, volatilization, or sorption of endrin in aquatic systems. Similarly, hydrolysis (half-life about 4 y) does not seem to significantly affect the fate of endrin. ⁵⁹ However, both photolysis and bicaccumulation appear to play significant roles. Bicaccumulation factors on the order of 10³ to 10⁴ have been observed. ²⁹

Hayes⁶⁰ reported that a 0.20- to 0.25-mg/kg dose of endrin causes a single convulsion, and a 1-mg/kg dose of endrin causes repeated, nonfatal convulsions (Table 17).³⁴ Notice that the water concentration corresponding to the dose that causes a single convulsion (930 to 1200 μ g/L) is greater than the maximum solubility

b Maximum water concentration reported: 1.03 μ g/L (see Appendix C); solubility of dieldrin in water: 186 μ g/L.⁵¹

C Human dose-response unless otherwise indicated.

Table 17. Dose-response data for endrin.

essions for dose ⁸	_	
Water concentrationb (µg/L)	Response ^C	Ref.
0.90	Acceptable Daily Intake (ADI)	21, 61
65	Occupational intake standard	34
120	NOEL (dog)	61
930 to 1200	Single convulsion	60
1.00	Repeated, nonfatal convulsions	34
33,000 to 70,000	Acute oral LD50 (rat)	28
140,000	Fatal to child	60
400,000	Lethal dose	61
	Water concentration b (µg/L) 0.90 65 120 930 to 1200 1.00 33,000 to 70,000 140,000	Water concentration (µg/L) O.90 Acceptable Daily Intake (ADI) 65 Occupational intake standard 120 NOEL (dog) 930 to 1200 Single convulsion 1.00 Repeated, nonfatal convulsions 33,000 to 70,000 Acute oral LD50 (rat)

a Water concentration is calculated from the food-contaminant dose on the basis of a 70-kg adult consuming 15 L/d of field water.

concentration (230 μ g/L). In fact, the dose that causes a single convulsion is greater than the maximum concentration detected, 1.5 μ g/L, and much greater than the concentration typically detected (<0.012 μ g/L). The IARC reviewed animal studies of endrin carcinogenicity and concluded that one study on rats was negative; they found that two other studies, one on rats and one on mice, were insufficient for evaluation. ³⁶

Although endrin appears to be relatively persistent in the aquatic environment, solubility parameters reduce the likelihood of endrin rising to a concentration that could cause a toxic response. Moreover, the highest reported concentration of endrin found in world water supplies does not approach toxic levels. Therefore, based on theoretical considerations and the available monitoring data, it seems unlikely that endrin would adversely affect military personnel.

^b Maximum water concentration reported: 1.5 μ g/L (see Appendix C); solubility of endring in water: up to 230 μ g/L.⁵⁸

C Human dose-response unless otherwise indicated.

Leptophos. Leptophos is a broad-spectrum, nonsystemic insecticide. Although it was never licensed for general use in the U.S., except for small experimental amounts, leptophos was manufactured here from 1989 until 1976. During that period, it was exported to more than 50 countries, including Egypt, Canada, Colombia, Syria, Mexico, Indonesia, and South Vietnam. It was used as both a soil and foliar insecticide against a wide range of insects on cotton, vegetables, fruits, and maize. 62,66

In the open literature, the only reported detection of leptophos was in a brackish pond in Indonesia. Leptophos was deliberately applied to this pond in order to assess its uptake by fish and persistence in the aquatic environment. The maximum concentration detected was 13.47 μ g/L, sampled immediately after application (see Appendix C, Table C-42). Since leptophos has a water solubility of 2400 μ g/L, ²⁹ it is reasonable to believe that a concentration of 13.47 μ g/L could have been obtained in the aquatic environment.

Studies indicate that leptophos is a moderately persistent insecticide. One study showed that after 4 mo, 40 to 100% of the original amount of leptophos remained unchanged in waters from the Nile River, irrigating canals, and in drainage waters. The principal photodegradation products have been identified as: desbromoleptophos, leptophos oxon, o-methylphenylphosphonothioic acid, o-methylphenylphosphonic acid, 4-bromo-2,5-chlorophenol, and 2,5-dichlorophenol. Leptophos is estimated to have a soil persistence of approximately 2 mo. In laboratory soil-column studies, leptophos possessed little downward mobility. To

Animal dose-response data for leptophos are presented in Table 18. Toxicity data are included not only for the rat but also for the hen, since the hen is considered to be the most sensitive experimental animal for studying delayed-neurotoxicity syndrome. The results indicate that the maximum concentration detected in world monitoring studies (13.47 µg/L) is well below the toxic level for either rats or hens. However, reports have shown that desbromoleptophos, a photodegradation product, appears to be 8 to 10 times more active as a delayed neurotoxin in hens than leptophos itself. Moreover, the extensive use of leptophos in Egypt (about 8098 metric tons applied from 1966 to 1975) is associated with the demyelinating effect and subsequent death in 1971 of more than 1200 water buffalo that drank leptophos-contaminated water. 65,75

Private communications with Velsicol Chemical Corp., which discontinued production of leptophos in 1976, indicated that leptophos is no longer manufactured anyplace in the world. In light of this information, leptophos is unlikely to be found in present world water supplies and is considered unlikely to pose a health hazard to military personnel from ingestion of drinking water.

Table 18. Dose-response data for leptophos.

[mg/(kg•day)]	(μg/L) 4.87	Response	period	Species	
0.004	A 87	معمد والمعمد ومراهن ويهارا المهرور التها المهرون والمراه		-hooma	Ref.
0.001	7.07	Acceptable Daily Intake (ADI)	Lifetime	Human	21,62
1.5	7,000	Slight inhibition of red cell, plasma, and brain cholinesterase	12 wk in diet	Rat	34
4.4	20,500	No effect	12 wk in diet	Rat	34
24 to 91	110,000 to 420,000	Acute oral LD50		Rat	71
50	, 230,000	No effect	Single dose	Hen	72
5 to 10	23,000 to 47,000	Ataxia	4 mo in diet	Hen	72
180	840,000	Threshold ataxia	Single dose	Hen	73
4,700	22,000,000	Oral LD50		Hen	34

a Water concentration is calculated from the food-contaminant dose on the basis of a 70-kg adult consuming 15 L/d of field water.

The insecticide lindane is the gamma-isomer of 1,2,3,4,5,6-hexachlorocyclohexane (HCH). The term "benzene hexachloride" (BHC) is often used when referring to HCH. Eight steric isomers of HCH have been isolated from the technical HCH mixture, which also may contain small amounts of heptachlorocyclohexane octachlorocyclohexane. The composition of the technical mixture is somewhat variable. Even though the gamma-isomer (lindane) is the insecticidally active form, the technical HCH mixture is also sometimes applied as an insecticide. Findings of HCH in water samples were reported as "total HCH" or as concentrations of the alpha-, beta-, and gamma-isomers (see Appendix C). The alpha- and beta-isomers are environmental transformation products of lindane, 29 but their presence in water could also result from the application of technical HCH.

^b Maximum water concentration reported: 13.47 μ g/L (see Appendix C); solubility of leptophos in water: 2400 μ g/L.²⁹

Lindane is commonly used against a wide variety of pest problems, including insects in cotton, rice, seeds, soil, and wood, as well as household insects. It is also used to control vector-borne diseases such as malaria. Because of its multiple and large-volume uses in many countries, lindane is likely to be encountered almost anywhere. High levels of lindane in water may result from its direct application to water in mosquito control or from its use on rice. 34,45

Most of the lindane concentrations reported in the open literature are from samples of surface water, primarily from rivers (see Appendix C, Table C-7). Levels of up to 1 to $2 \mu g/L$ were occasionally detected, but most measurements were well below $1 \mu g/L$. In one instance, however, a maximum lindane concentration of 7.1 $\mu g/L$ was found in surface water in West Berlin (see Table C-7, p. 88). Groundwater samples from Israel and Egypt also contained only low levels of lindane, occasionally reaching concentrations of 1 to $2 \mu g/L$. The highest levels (1920 $\mu g/L$) were found in rice-paddy water following the application of lindane (see Table C-7, p. 89) and in potable water tanks near rice paddies (1200 $\mu g/L$). Water concentrations even higher than the highest described here are possible since lindane is soluble in water to the extent of about 7 to 12 m g/L.

Lindane cannot be expected to rapidly dissipate from water. For example, in the rice paddy mentioned above, the lindane level had only diminished to 1050 µg/L nine days after Teimoory and Hosseiny-Shekarabi. measured levels of 1920 µg/L. The processes of hydrolysis, oxidation, and photolysis do not appear to degrade significant amounts of lindane in the environment. Lindane is removed from water by volatilization and adsorption to suspended solids, which eventually settle out of the water column. Microorganisms in bottom sediments then transform and degrade the lindane molecule. 29,77

Almost all of the lindane concentrations reported in the open literature are below the levels that might have adverse toxicological effects. The Acceptable Daily Intake (ADI) for lindane is 0.01 mg/kg (see Table 19). This daily dose corresponds to a concentration of 47 μ g/L (assuming that a 70-kg adult consumes 15 L of water per day). The EPA interim standard for lindane is 4.0 μ g/L. As mentioned above, reported concentrations rarely exceed 1 to 2 μ g/L. Technical HCH and lindane are carcinogenic in mice. Studies linking technical HCH and lindane to cancer in humans were considered inconclusive by an IARC review committee. 35

Based on the data in Table 19, the highest lindane concentrations reported in the open literature could cause performance-degrading health effects. For example, ingestion of 30 to 40 mg of lindane per day by a group of 15 humans produced adverse effects in six individuals, including convulsions in two. 34,80 A dose of 30 mg/day

Table 19. Mammalian dose-response data for lindane.

Equivalent ex	pressions for dosea			
Food contaminant [mg/(kg•d)]	Water concentrationb (µg/L)	Response	Species	Ref.
0.01	47	Acceptable Daily Intake (ADI)	Human	21,78
0.43 to 0.57 ^C	2,000 to 2,700	Minimum toxic dose; 6 of 15 poisoned, 2 with convulsions	Human	34
1.25	5,800	No toxic effect	Rat	78
1.6	7,400	No toxic effect	Dog	78
₄₀₀ d	1,900,000	Mean fatal dose	Human	79

a Water concentration is calculated from the food-contaminant dose on the basis of a 70-kg adult consuming 15 L/d of field water.

administered to a 70-kg adult, is equivalent to a drinking-water concentration of 2000 μ g/L being consumed at a rate of 15-L/day water. Concentrations approaching 2000 μ g/L have been measured in water in agricultural areas, particularly rice paddies.

Lindane (and technical HCH) is one of the most heavily used insecticides outside of the U.S. It is soluble in water at levels well above toxic levels, and high levels can persist in water for periods of at least a week, if not longer. In addition, levels likely to produce acute toxicity have been measured in agricultural waters. Levels in flowing rivers and ground water are apparently much lower. Thus, it appears that lindane presents a potential risk of performance degradation to military personnel as a result of foreign water-supply contamination, particularly agricultural waters.

Malathion. Malathion is one of the most widely used organophosphate insecticides. It is a broad-spectrum insecticide used on crops, in homes, and for mosquito control, especially

b Maximum water concentration reported: 1920 µg/L (see Appendix C); solubility of lindane in water: 7.8 mg/L at 25°C.

Reported as 30 to 40 mg/person.

d Reported as 28 g/adult.

in areas where the mosquitoes have developed resistance to DDT and BHC. Because of its relatively low toxicity to mammals, malathion is also commonly used against animal ectoparasites, including lice on humans. 28,47,81

Malathion levels in foreign waters reported in the open literature are typically very low; in 10 of 16 reports listed in Appendix C, it was not detected. With one exception, the highest level found was an average value of $0.3 \,\mu\text{g/L}$. The exception was a finding of 1600 $\,\mu\text{g/L}$ reported as an average value for a rural pond in India. The report did not include a description of the events leading to the high malathion level.

Levels of 1600 µg/L and higher are not unreasonable since the solubility of malathion in water is 145,000 µg/L. ⁸² The persistence of high levels is variable and will depend on factors such as the pH, biological activity of the water, and other factors. ⁸³ Studies examining the persistence of malathion in water reported findings such as a half-life of less than 1 wk in a raw-water sample, almost complete degradation in 10 d, 75% reduction in 1 wk, and complete reduction in 4 wk. ^{47,83} In another report, malathion sprayed on a log pond was reported to be effective against mosquitoes for up to 6 wk. ⁴⁷ The National Academy of Science commented that malathion is generally degraded faster in water than other organophosphate pesticides, but the production and persistence of metabolites is largely uninvestigated. ⁴⁷

The only toxic effects firmly attributable to malathion itself are nervous system problems caused by the accumulation of acetylcholine.⁸¹ Some malathion formulations proved to be unusually toxic, and this was attributed to contaminants (e.g., isomalathion).81 The available information on carcinogenicity does not provide evidence that malathion is likely to present a carcinogenic risk to humans.⁸⁴ Most reported levels of malathion in water are well below those that are considered by WHO to be safe for long-term exposures. However, a dose equivalent to one a 70-kg adult would receive by consuming water containing the highest reported levels (1600 µg/L) at a rate of 15 L/d did produce a 25% reduction in plasma cholinesterase activity within 2 wk. The exposures to this dose continued for 56 d and, while cholinesterase remained depressed, there were no clinical effects observed or reported in the exposed individuals (see Table 20).85 Clinical symptoms of acute organophosphate poisoning (i.e., blurred vision, headache, nausea, vomiting) do not usually appear until cholinesterase levels are depressed to 50% or less of baseline levels.⁸¹ The highest levels of malathion reported in the literature probably would cause biochemically detectable changes (i.e., depressed cholinesterase levels), but probably would not cause performance degradation in troops. However, troops with depressed cholinesterase levels would be more susceptible to other cholinesteraseinhibiting pesticides or agents.

Table 20. Dose-response data for malathion.

Equivalent expr	essions for dose ^a		
Food contaminant [mg/(kg•day)]	Water concentration ^b (µg/L)	Response ^C	Ref.
0.02	93	Acceptable Daily Intake (ADI)	21, 86
0.2	900	No adverse effect	86
0.23d	1,000	No significant effect in 47 d	85
0.34 ^e	1,600	No-discernible-effects threshold for 56-d exposure	85
71 ^f	330,000	Minimum fatal dose	47

a Water concentration is calculated from the food-contaminant dose on the basis of a 70-kg adult consuming 15 L/d of field water.

Even though malathion is one of the less toxic organophosphorus insecticides, it can be dissolved in water to much higher concentrations than those likely to cause performance-degrading health effects. Considering this and the large amounts of malathion that are used around the world, it is surprising that there were not more reports of high malathion concentrations in water, and that there were not more reports of human poisoning from malathion in drinking water. The relatively short half-life of malathion in water is probably at least partly responsible for this. High levels are unlikely to persist in water for several weeks without continued entry of the pesticide into the water.

<u>Phosphamidon</u>. Phosphamidon is a systemic, broad-spectrum insecticide/acaricide. ^{23,28} Chemically, it is a mixture of approximately 30% alpha-isomer (trans-phosphamidon) and 70% beta-isomer (cis-phosphamidon); the latter form is more active biologically. ⁶⁷

Phosphamidon is used extensively on about every crop grown in the world.²³ It is mainly used against sucking insects in rice, thrips in cotton, and aphids in a wide variety of crops.^{23,28}

b Maximum water concentration reported: 1600 µg/L (see Appendix C); solubility of malathion in water: 145,000 µg/L.82

C Human dose-response unless otherwise indicated.

d Reported as 16 mg/person.

Reported as 24 mg/person.

f Minimum fatal dose is estimated to be about 5 g. 47

In the open literature, the maximum concentration reported for phosphamidon in water was 110 μ g/L from rice fields in Iran. This was an experimental study designed to evaluate the degradation rate of phosphamidon, applied at 0.75 L/hectare. Immediately after application, residues of 110 μ g/L were detected. However, by the third day, the residues had decreased to 50 μ g/L and had completely disappeared by the tenth day. No typical concentration level for phosphamidon could be determined because of the absence of detection data in worldwide monitoring literature. Phosphamidon is completely miscible with water. ²⁴

Phosphamidon finds its way into water supplies primarily by means of surface runoff. 23 Its half-life in water is less than 2 wk. 87 In soil its half-life ranges from 0 to 30 d. 88 No soil metabolites have been reported. 88

As can be seen in Table 21, the maximum detected concentration (110 μ g/L) reported in world monitoring studies does not approach toxic levels. Although phosphamidon is reported to be a cholinesterase inhibitor, ⁹⁰ there are no reports in the literature of cumulative toxic effects to humans by the oral route.

Based on the relatively low concentration found in water immediately after application of the pesticide on a rice paddy, its short persistence in water, and its low toxicity, phosphamidon in drinking water does not appear to be a likely hazard to military personnel. However, because phosphamidon is completely miscible with water, it would be possible to find a toxic concentration after a spill, deliberate contamination, or some other unusual event.

Toxaphene. Toxaphene is a complicated, chlorinated camphene mixture containing 67 to 69% chlorine. The toxaphene mixture consists of at least 175 different compounds, fewer than ten of which have been identified. Among other names, it is also known as camphechlor. Among other names, it is also known as camphechlor.

Toxaphene is manufactured and used in many parts of the world (see earlier discussion of pesticide use). In many countries where it is used, toxaphene is used in very large quantities, often exceeding those of any other pesticide (see Tables 5 and 7). For many years, toxaphene was the pesticide applied in greatest quantity in the U.S. as well. 92 It is used against insects on many crops and herd animals and is used extensively on cotton. 28,34 It is also occasionally used as a rodenticide. 93

Despite its heavy use around the world, there are very few reports of toxaphene measurements in water samples. This is, in part, attributable to the difficulty of detecting and quantifying something as complex as toxaphene. Because toxaphene is used in such large volumes, we supplemented the monitoring data with reports from the U.S.

Table 21. Dose-response data for phosphemidon.

Equivalent expr	essions for dosea	_			
Food contaminant [mg/(kg•day)]	Water concentration ^t (µg/L)	Response	Exposure period	Species	Ref.
0.001	4.67	Acceptable Daily Intake (ADI)	Lifetime	Human	21,61
1.25	5,800	No effect	2 y in diet	Rat	24
2.5	11,700	No effect	90 d	Rat	89
17 to 30	79,000 to 140,000	Acute, oral LD50		Rat	89
60 to 120	280,000 to 560,000	No clinical effect	Single dose	Child	34

a Water concentration is calculated from the food-contaminant dose on the basis of a 70-kg adult consuming 15 L/d of field water.

The highest level reported, $20.9 \,\mu\text{g/L}$, was found in runoff from a toxaphene-treated cotton field. A maximum level of 13.7 $\,\mu\text{g/L}$ was found in a lake that had been treated with toxaphene to get rid of unwanted fish species. Toxaphene could not be detected in samples taken from several different locations in Africa, nor in a sample of potable water in rural Australia (see Appendix C).

The solubility of toxaphene in water is about 500 to 3000 μ g/L²⁹; thus, levels higher than those in the monitoring data in the open literature are possible. Toxaphene is considered to be moderately persistent. The primary way that toxaphene is removed from water appears to be by sorption onto particles that settle to the bottom, followed by anaerobic degradation in the bottom sediments.²⁹ Volatilization may also contribute to the disappearance of toxaphene from water in some situations.²⁹ Thus, toxaphene may only persist in water for a few days, or it could persist for many months.⁹²

The ADI for toxaphene is based on a dose to rats that caused no adverse effects. In extrapolating the results from the rat study to a human ADI, a 1000-fold safety factor was applied. As can be seen in Table 22, the dose corresponds to a concentration in water of 5.8 µg/L when 15 L/day of such water is consumed by a 70-kg adult. The EPA

^b Maximum water concentration reported: 110 μ g/L (see Appendix C); solubility of phosphamidon in water: completely miscible with water.²⁴

Table 22. Dose-response data for toxaphene.

Equivalent exp	ressions for dosea				
Food contaminant [mg/(kg•day)]	Water concentrationb (µg/L)	Response	Exposure period	Species	Ref.
0.00125	5.8	Acceptable Daily Intake (ADI) ^C	Lifetime	Human	41
0.6 to 0.8	2,800 to 3,740	No adverse effect	2 y	Monkey	41
0.6 to 1.5	2,800 to 7,000	No adverse effect	2 y	Dog	41
1	4,600	No adverse effect	13 d ^d	Human	34
3.5 to 10	16,000 to 44,000	Fatal		Human	92
4	18,000	Intermittent illness	44 to 106 d	Dog	34

a Water concentration is calculated from the food-contaminant dose on the basis of a 70-kg adult consuming 15 L/d of field water.

established an interim drinking-water standard of $5 \mu g/L$. Solubility considerations and the monitoring data suggest that these levels will be exceeded in water near sites of toxaphene usage, but it appears that levels much higher than these are required for performance degradation, particularly if exposures are limited to one year.

There are few reports of acute or fatal poisonings in humans from toxaphene. 34,47 One study listed in Table 22 revealed no adverse effects in humans exposed by aerosol dose equivalent to about 1 mg/(kg•d) for 13 d total (exposure for 10 consecutive days, followed by 3 wk without exposure, then 3 d of exposure). The same dose would be delivered to 70-kg military personnel consuming 15 L of water per day, containing about 4600 µg/L of toxaphene. Long-term animal studies disclosed no adverse effects at doses that correspond to water concentrations above 2800 µg/L for 70-kg troops consuming up to 15 L/d of water. Frank toxicity in dogs occurred at a dose corresponding to about

 $[^]b$ Maximum water concentration reported: 20 $\mu g/L$ (see Appendix C); solubility of toxaphene in water: 500 to 3000 $\mu g/L.^{29}$

C Extrapolated from a no-observed-effects dose to rats by using a 1000-fold safety factor.

d Experimental aerosol exposure equivalent to a dosage of about 1 mg/(kg•d) administered for 10 consecutive days, followed by 3 wk of no exposure, and then administered again for 3 more days.

18.000 μ g/L. Human fatal doses are roughly estimated to be in the range of 3.5 to 9.5 mg/kg of body weight, corresponding to water concentrations above 16,000 μ g/L for 70-kg troops consuming up to 15 L/d of water. The no-adverse-effect doses and the frankly toxic doses are at or above the solubility of toxaphene in water and are well above toxaphene concentrations reported in the open literature. The IARC concluded that there is sufficient evidence that toxaphene is carcinogenic in mice and rats and recommends that it is reasonable to treat toxaphene as if it presented a carcinogenic risk to humans. ³⁵

The monitoring data show that toxaphene concentrations occasionally exceed those that would be safe for a lifetime exposure (5.8 μ g/L). However, levels of toxaphene in water that would cause performance degradation or irreversible health effects in troops appear to be unlikely.

DISCUSSION AND CONCLUSIONS

The monitoring data and accompanying information concerning concentrations of pesticides in foreign water supplies provides insight into the situations likely to result in high contamination levels. Combined with details about pesticide sales, environmental persistence, and other pertinent information, important characteristics of the potential for troop exposure to pesticides in field water can be inferred. Then, evaluations of the toxic doses and effects of pesticides will indicate which pesticides are most likely to degrade troop performance as a consequence of such exposure. The basic conclusion drawn from the available data is that while pesticide contamination is widespread, it is only rarely severe enough to threaten troops' health. The challenge to military health officers is to detect and avoid the apparently rare cases of extremely contaminated water.

Although many different pesticides were found in large bodies of water such as rivers, streams, lakes, aquifers, and oceans, the levels of the pesticides measured in these waters typically were below both the ADI- and LD50-based screening concentrations, except for leptophos (see Tables 23 and 24). However, leptophos has not been manufactured since 1976, and the one reported detection level was immediately after its application; hence, its typical concentration is likely to be below the screening level. Therefore, ingestion of typical pesticide concentrations in water by military personnel for periods lasting up to 7 d or up to 1 y should not degrade performance or, it would appear, produce any other acute or subchronic health effects. Some of the pesticides may, however, cause effects that have nonthreshold mechanisms (e.g., cancers), and exposure to these pesticides at even low levels would entail some incremental risk. Nevertheless,

Table 23. Comparison between ADI-based and LD50-based screening concentrations and highest monitored concentrations below these screening levels. (Substances are presented alphabetically).

·		Screening concentration $(C_S, \mu g/L)$	ncentration g/L)	Highest monitored concentration (µg/L)	Percentage of highest monitored levels	Number of
Substance (Table in App. C)	p. C)	ADi-based	LD50-based	LD50-based C _S values	below both Cs values	sampled
Aldrin	(C-01)	5.0E-01	3.9E+02	2.0E-01	97	65
Bayluscide	(C-02)	1 1	-	Not detected	100	7
Benthiocarb	(C-03)	!	1.9E+02	3.6E+00	88	80
BHC	(C-04)	!	!	6.5E-01	86	87
alpha-BHC	(C-05)	1	1.8E+01	9.1E-01	06	129
beta-BHC	(O-O)	1	6.0E+02	9.0E-01	06	51
gamma-BHC (Lindane)	(C-02)	4.7E+01	7.6E+00	9.0E-01	93	193
Captafol	(C-42)	4.7E+02	2.5E+02	Not detected	100	_
Captan	(C-08)	4.7E+02	9.0E+02	Not detected	100	7
Carbaryl	(C-03)	4.7E+01	2.5E+01	4.0E-01	100	က
Chlordane	(C-10)	4.7E+00	2.8E+01	Not detected	100	m
cis-Chlordane	(C-11)	1	ŧ	1.0E-01	100	22
beta trans-Chlordane	(C-12)	1	!	5.0E-01	100	22
Chlorobenzilate	(C-42)	9.3E+01	7.0E+01	Not detected	100	
CNP	(C-13)	!	1.1E+03	2.0E+00	89	6
2,4-D	(C-14)	1.4E+03	3.7E+01	2.2E-01	100	6
DDMU	(C-42)	!	* *	2.0E-02	100	- *
p,p'-DDT	(C-18)	2.3E+01	8.7E+00	9.6E-01	97	314
o,p'-DDT	(C-17)	;	!	9.5E-01	100	46
p.p DDD	(C-15)	•	1.1E+01	8.3E-01	96	136
o,p'-DDD	(C-42)	1	•	6.0E-02	100	-
p.p.' -DDE	(C-18)	ļ 1	8.8E+01	9.5E-01	97	159
o,p'-DDE	(C-42)	!	1	3.0E-02	100	+**
Diazinon	(C-19)	9.3E+00	6.6E+00	5.0E-02	91	11
Dichlorvos	(C-42)	1.9E+01	3.2E+00	Not detected	100	,

Table 23. (Continued)

		Screening concer (C _S , μg/L)	ing concentration (C _S , μg/L)	Highest monitored concentration (µg/L) helow both ADL and	Percentage of highest monitored levels < the one that is	Number of locations
Substance (Table in App. C)	љ. С)	ADI-based	LD50-based	LD50-based C _S values	below both C _S values	sampled
Dieldrin	(C-20)	5.0E-01	4.0E+00	4.0E-01	66	140
Dimethoate	(C-21)	9.3E+01	1.5E+01	8.0E-02	100	က
Endosulfan	(C-22)	3.5E+91	1.8E+00	5.5E-01	130	16
alpha-Endosulfan	(C-23)	1	1	2.5E-01	95	38
beta-Endosulfan	(C-24)	!	!!!	1.0E-01	94	32
Endrin	(C-25)	9.1E-01	3.0E-01	5.0E-02	93	28
EPN	(C-26)	1	8.0E-01	Not detected	100	7
Fluometuron	(C-27)	;	8.9E+02	6.0E+01	83	9
Fluridone	(C-28)	1	}	5.0E+01	100	7
Heptachlor	(C-29)	2.3E+00	4.0E+00	7.0E-01	100	64
Heptachlor epoxide	(C-30)	2.3E+00	4.7E+00	4.0E-02	100	89
Hexachlorobenzene	(C-31)	!	1.0E+03	1.4E-01	100	17
L.eptophos ^a	(C-42)	4.7E+00	3.0E+00	1.3E+01	!	,
Malathion	(C-32)	9.3E+01	3.7E+01	3.0E-01	94	16
Methoxychlor	(C-33)	1	5.0E+02	Not detected	100	ស
Mevinphos	(C-34)	7.0E+00	3.0E-01	Not detected	100	2
Monocrotophos	(C-42)	2.8E+00	8.0E-01	Not detected	100	-
Oxadiazon	(C-35)	-	3.5E+02	1.9E+00	100	9
Parathion	(C-36)	2.3E+01	2.0E-01	7.0E-02	100	39
Parathion, dimethyl	(C-37)	4.7E+00	6.0E-01	1.7E-01	20	♥
PCP-Na	(C-42)	!	;	Not detected	100	-
Phosphamidon	(C-38)	4.7E+00	1.5E+00	Not detected	20	7
Toxaphene	(C-39)	!	4.0E+00	2.2E+00	89	18
Trifluralin	(C-40)	1	5.0E+02	8.0E-01	100	∞
Trithion	(C-41)		7.0E-01	Not detected	100	7

^aLeptophos has not been manufactured since 1976⁷⁶, and the highest monitored concentration for leptophos was detected immediately after its application. Therefore, it is likely that leptophos concentrations in water typically will be below the screening concentrations.

Table 24. Comparison between ADI-based and LD50-based screening concentrations and highest monitored concentrations below these screening levels. (Substances are presented in order of the number of locations sampled).

<i>V</i>		Screening concentration $(C_S, \mu g/L)$	ncentration g/L)	Highest monitored concentration (µg/L)	Percentage of highest monitored levels	Number of
Substance (Table in App. C)	р. С)	ADI-based	LD50-based	LD50-based C _S values	below both C _S values	sampled
p.p DDT	(C-18)	2.3E+01	8.7E+00	9.6E-01	26	314
gamma-BHC (Lindane)	(C-02)	4.7E+01	7.5E+00	9.05-01		193
p,p'-DDE	(C-16)		8.8E+01	9.5E-01	97	159
Dieldrin	(C-20)	5.0E-01	4.0E+00	4.0E-01	66	146
p.p DDD	(C-15)	j	1.1E+01	8.3E-01	95	136
alpha-BHC	(C-05)	1	1.8E+01	9.1E-01	06	129
BHC	(C-04)	1	;	6.5E-01	86	87.
Aldrin	(C-01)	5.0E-01	3.9E+00	2.0E-01	97	. 65
Heptachlor	(C-29)	2.3E+00	4.0E+00	7.0E-01	100	64
Heptachlor epoxide	(C-30)	2.3E+00	4.7E+00	4.0E-02	100	8
beta-BHC	(C-06)	!	6.0E+02	9.0E-01		51
o,p'-DDT	(C-17)	•		9.5E-01	8 2	\$
Parathion	(C-36)	2.3E+01	2.0E-01	7.0E-02	100	39
alpha-Endosuifan	(C-23)	1	!	2.5E-01		38
beta-Endosulfan	(C-24)	1	1 1	1.0E-01	#6	35
Endrin	(C-25)	9.0E-01	3.0E-01	5.0E-02	93	28
beta trans-Chlordane	(C-12)	1	1	5.0E-01	100	22
cis-Chlordane	(C-11)	!	1	1.0E-01	100	22
Toxaphene	(C-39)	!	4.0E+00	2.2E+00	63	20
Hexachlorobenzene	(C-31)	!	1.0E+03	1.4E-0i	100	12
Endosulfan	(C-22)	3.5E+01	1.8E+00	5.5E-01	100	16
Malathion	(C-32)	9.3E+01	3.7E+01	3.0E-01	94	3
Diazinon	(C-19)	9.3E+00	6.65+00	5.0E-02	91	11
CNP	(C-13)	-	1.1E+03	2.0E+00	68	G
Benthiocarb	(C-03)	1	1.9E+02	3.6E+00	88	&
Trifluralin	(C-40)	!	5.0E+02	8.0E-01	100	∞
Fluometuron	(C-27)	!	8.9E+02	6.0E+01	83	မွ
Oxadiazon	(C-35)	:	3.5E+02	1.9E+00	100	9
Methoxychlor	(C-33)	;	5.0E+02	Not detected	81	S

Table 24. (Continued)

S below both C _S values 100 100 100 100 100 100 100 100 100 10			Screening concentration (C _S , μg/L)	ncentration g/L)	Highest monitored concentration (µg/L)	Percentage of highest monitored levels	Number of
nion, dimethyl (C-37) 4.7E+00 6.0E-01 1.7E-01 ryl (C-09) 4.7E+00 2.5E+01 4.0E-01 ryl (C-09) 4.7E+00 2.8E+01 Not detected hoate (C-14) 1.4E+03 3.7E+01 8.0E-02 rcide (C-02) Not detected n (C-08) 4.7E+02 9.0E+02 Not detected n (C-26) 8.0E-01 Not detected n (C-26) 8.0E-01 Not detected phos (C-28) 5.0E+01 1 phos (C-26) 8.0E-01 Not detected nn (C-28) 5.0E+01 Not detected fol (C-24) 7.0E-01 Not detected fol (C-42) 4.7E+02 2.5E+02 Not detected invos (C-42) 4.7E+02 3.0E+01 1.3E+01 invos (C-42) 4.7E+02 <th>Substance (Table in A</th> <th>pp. C)</th> <th>ADI-based</th> <th>LD5/)-based</th> <th>LD50-based C_s values</th> <th>below both C_S values</th> <th>sampled</th>	Substance (Table in A	pp. C)	ADI-based	LD5/)-based	LD50-based C _s values	below both C _S values	sampled
ryl (C-09) 4.7E+01 2.5E+01 4.0E-01 lane (C-10) 4.7E+00 2.8E+01 Not detected hoate (C-14) 1.4E+03 3.7E+01 2.2E-01 cide (C-02) Not detected 1 (C-02) 8.0E+02 Not detected 1 (C-28) 8.0E-01 Not detected 1 house (C-38) 4.7E+02 3.0E-01 Not detected 1 house (C-38) 4.7E+00 1.5E+00 Not detected 1 house (C-42) 4.7E+02 1.5E+02 Not detected 1 house (C-42) 4.7E+02 1.5E+02 Not detected 1 house (C-42) 4.7E+03 1.5E+03 Not detected 1 house (C-43) 4.7E+03 1.5E+03 Not detected 1 house (C-43) 4.7E+03 1.5E+03 N	Parathion, dimethyl	(C-37)	4.7E+00	6.0E-01	1.7E-01	05	4
lane (C-10) 4.7E+00 2.8E+01 Not detected hoate (C-21) 9.3E+01 1.5E+01 8.0E-02 (C-14) 1.4E+03 3.7E+01 2.2E-01 C.02	Carbaryl	(C-09)	4.7E+01	2.5E+01	4.0E-01	100	'n
hoate (C-21) 9.3E+01 1.5E+01 8.0E-02 cide (C-14) 1.4E+03 3.7E+01 2.2E-01 cide (C-02) Not detected n (C-26) 8.0E-01 Not detected phos (C-26) 8.0E-01 Not detected chos (C-34) 7.0E+00 3.0E-01 Not detected phos (C-34) 7.0E+00 1.5E+00 Not detected n (C-41) 7.0E-01 Not detected n (C-42) 4.7E+02 2.5E+02 Not detected n (C-42) 4.7E+02 2.5E+02 Not detected n (C-42) 4.7E+02 2.5E+02 Not detected n (C-42) 4.7E+02 3.2E+00 Not detected n (C-42) 4.7E+00 3.0E+00 1.3E+01 n (C-42) 4.7E+00 3.0E+00 Not detected n C-42) 2.8E+00 Not d	Chlordane	(C-10)	4.7E+00	2.8E+01	Not detected	100	'n
cide (C-14) 1.4E+03 3.7E+01 2.2E-01 cide (C-02) Not detected n (C-08) 4.7E+02 9.0E+02 Not detected n (C-26) 8.0E-01 Not detected phos (C-28) 5.0E+01 phos (C-34) 7.0E+00 3.0E-01 Not detected n (C-38) 4.7E+00 1.5E+00 Not detected n (C-41) 7.0E-01 Not detected n (C-42) 4.7E+02 2.5E+02 Not detected n (C-42) 4.7E+02 2.5E+02 Not detected n (C-42) 4.7E+02 2.5E+02 Not detected n (C-42) 4.7E+02 3.2E+02 Not detected n (C-42) 4.7E+00 3.0E+01 Not detected n (C-42) 4.7E+00 3.0E+01 Not detected n (C-42) 4.7E+00 3.0E+01 <td>Dimethoate</td> <td>(C-21)</td> <td>9.3E+01</td> <td>1.5E+01</td> <td>8.0E-02</td> <td>100</td> <td>က</td>	Dimethoate	(C-21)	9.3E+01	1.5E+01	8.0E-02	100	က
cide (C-02) Not detected n (C-08) 4.7E+02 9.0E+02 Not detected n (C-26) 8.0E-01 Not detected ne (C-28) 5.0E+01 phos (C-34) 7.0E+00 3.0E-01 Not detected namidon (C-38) 4.7E+00 1.5E+00 Not detected n (C-41) 7.0E-01 Not detected n (C-41) 7.0E-01 Not detected n (C-42) 4.7E+02 2.5E+02 Not detected n (C-42) 9.3E+01 7.0E+01 Not detected n (C-42) 4.7E+02 2.5E+02 Not detected n (C-42) 4.7E+00 3.0E+01 Not detected n (C-42) 4.7E+00 3.0E+00 1.3E+01 n (C-42) 4.7E+00 3.0E+00 Not detected n (C-42) 2.8E+00 Not detected<	2,4-D	(C-14)	1.4E+03	3.7E+01	2.2E-01	100	7
(C-26) 4.7E+02 9.0E+02 Not detected (C-26) 8.0E-01 Not detected (C-28) 5.0E+01 Not detected (C-34) 7.0E+00 3.0E-01 Not detected (C-38) 4.7E+00 1.5E+00 Not detected (C-41) 7.0E-01 Not detected (C-42) 4.7E+02 2.5E+02 Not detected (C-42) 9.3E+01 7.0E+01 Not detected (C-42) 1.9E+01 3.2E+00 Not detected a (C-42) 2.8E+00 8.0E-01 Not detected (C-42) 2.8E+00 8.0E-01 Not detected (C-42) 6.0E-02 (C-42) 3.0E-02 (C-42) Not detected (C-42) 8.0E-02 (C-42) Not detected	Bayluscide	(C-02)	+	;	Not detected	100	7
(G-26) 8.0E-01 Not detected (G-28) 5.0E+01 (G-34) 7.0E+00 3.0E-01 Not detected (G-38) 4.7E+00 1.5E+00 Not detected (G-41) 7.0E-01 Not detected (G-42) 4.7E+02 2.5E+02 Not detected (G-42) 9.3E+01 7.0E+01 Not detected (G-42) 2.0E-02 (G-42) 1.9E+01 3.2E+00 Not detected (G-42) 4.7E+00 3.0E+00 1.3E+01 phos (G-42) 2.8E+00 8.0E-01 (G-42) 2.8E+00 8.0E-01 Not detected (G-42) 5.0E-02 (G-42) 2.8E+00 8.0E-01 Not detected (G-42) 5.0E-02 (G-42) 5.0E-02 (G-42) 5.0E-02 (G-42) <td>Captan</td> <td>(C-08)</td> <td>4.7E+02</td> <td>9.0E+02</td> <td>Not detected</td> <td>100</td> <td>7</td>	Captan	(C-08)	4.7E+02	9.0E+02	Not detected	100	7
(C-28) 5.0E+01 (C-34) 7.0E+00 3.0E-01 Not detected (C-38) 4.7E+00 1.5E+00 Not detected (C-41) 7.0E-01 Not detected (C-42) 4.7E+02 2.5E+02 Not detected (C-42) 9.3E+01 7.0E+01 Not detected (C-42) 1.9E+01 3.2E+00 Not detected (C-42) 4.7E+00 3.0E+00 1.3E+01 phos (C-42) 2.8E+00 8.0E-01 Not detected (C-42) 6.0E-02	EPN	(C-26)	‡ !	8.0E-01	Not detected	100	7
(C-34) 7.0E+00 3.0E-01 Not detected (C-38) 4.7E+00 1.5E+00 Not detected (C-41) 7.0E-01 Not detected (C-42) 4.7E+02 2.5E+02 Not detected zilate (C-42) 9.3E+01 7.0E+01 Not detected (C-42) 1.9E+01 3.2E+00 Not detected i (C-42) 4.7E+00 3.0E+00 1.3E+01 phos (C-42) 2.8E+00 8.0E-01 Not detected (C-42) 2.8E+00 8.0E-02 6.0E-02 (C-42) 5.0E-02 (C-42) 2.8E+00 8.0E-01 Not detected (C-42) 6.0E-02 (C-42) (C-42) 6.0E-02 (C-42) (C-42) (C-42) <td>Fluridone</td> <td>(C-28)</td> <td>!</td> <td>1</td> <td>5.0E+01</td> <td>100</td> <td>7</td>	Fluridone	(C-28)	!	1	5.0E+01	100	7
C-38	Mevinphos	(C-34)	7.0E+00	3.0E-01	Not detected	100	7
(C-41) 7.0E-01 Not detected (C-42) 4.7E+02 2.5E+02 Not detected zilate (C-42) 9.3E+01 7.0E+01 Not detected (C-42) 1.9E+01 3.2E+00 Not detected (C-42) 4.7E+00 3.0E+00 1.3E+01 phos (C-42) 2.8E+00 8.0E-01 Not detected (C-42) 6.0E-02 (C-42) 5.0E-02 (C-42) 6.0E-02 (C-42) 5.0E-02 (C-42)	Phosphamidon	(C-38)	4.7E+00	1.5E+00	Not detected	20	7
(C-42) 4.7E+02 2.5E+02 Not detected zilate (C-42) 9.3E+01 7.0E+01 Not detected (C-42) 1.9E+01 3.2E+00 Not detected (C-42) 4.7E+00 3.0E+00 1.3E+01 phos (C-42) 2.8E+00 8.0E-01 Not detected (C-42) 6.0E-02 (C-42) 5.0E-02 (C-42) 5.0E-02 (C-42) (C-42) <td>Trithion</td> <td>(C-41)</td> <td>-</td> <td>7.0E-01</td> <td>Not detected</td> <td>100</td> <td>2</td>	Trithion	(C-41)	-	7.0E-01	Not detected	100	2
zilate (C-42) 9.3E+01 7.0E+01 Not detected (C-42) 2.0E-02 (C-42) 1.9E+01 3.2E+00 Not detected a (C-42) 4.7E+00 3.0E+00 1.3E+01 Not detected (C-42) 2.8E+00 8.0E-01 Not detected (C-42) 6.0E-02 (C-42) 3.0E-02 (C-42) Not detected	Captafol	(C-42)		2.5E+02	Not detected	100	_
(C-42) 2.0E-02 (C-42) 1.9E+01 3.2E+00 Not detected a (C-42) 4.7E+00 3.0E+00 1.3E+01 phos (C-42) 2.8E+00 8.0E-01 Not detected (C-42) 6.0E-02 (C-42) 3.0E-02 (C-42) Not detected	Chlorobenzilate	(C-42)	9.3E+01	7.0E+01	Not detected	100	—
i (C-42) 1.9E+01 3.2E+00 Not detected (C-42) 4.7E+00 3.0E+00 1.3E+01 (C-42) 2.8E+00 8.0E-01 Not detected (C-42) 6.0E-02 (C-42) 3.0E-02 (C-42) Not detected	DMGG	(C-42)	1	;	2.0E-02	100	
a (C-42) 4.7E+00 3.0E+00 1.3E+01 phos (C-42) 2.8E+00 8.0E-01 Not detected (C-42) 6.0E-02 (C-42) 3.0E-02 (C-42) Not detected	Dichlorvos	(C-42)	1.9E+01	3.2E+00	Not detected	35	-
phos (C-42) 2.8E+00 8.0E-01 Not detected (C-42) 6.0E-02 (C-42) 3.0E-02 (C-42) Not detected	Leptophosa	(C-42)	4.7E+00	3.0E+00	1.3E+01		,
(C-42) 6.0E-02 (C-42) 3.0E-02 (C-42) Not detected	Monocrotophos	(C-42)	2.8E+00	8.0E-01	Not detected	100	-
(C-42) 3.0E-02 (C-42) Not detected	o,p'-DDD	(C-42)	1	-	6.0E-02	100	 -
(C-42) Not detected	o,p'-DDE	(C-42)	*	;	3.0E-02	100	
	PCP-Na	(C-42)	!	!	Not detected	100	-

^aLeptophos has not been manufactured since 1976⁷⁶, and the highest monitored concentration for leptophos was detected immediately after its application. Therefore, it is likely that concentrations in water typically will be below the screening concentrations.

on the basis of our assessment of the typical concentrations for pesticides in water and their toxicity following ingestion, we conclude that treatment of foreign water supplies specifically to remove pesticides need not be performed routinely.

Thus the greatest threat to troop health from pesticides in water results from the infrequent, transient occurrence of extreme contamination. The fact that such contamination exists is documented in our earlier discussions of health incidents from pesticide-contaminated water (Table 11) and in the collected monitoring data (Appendix C). Acute intoxications from pesticides in drinking water produced effects such as nausea, vomiting, headache, weakness, and blurred vision (see previous discussion of pesticide-contamination incidents). Two fatalities were reported (Table 11).

The chances of suffering these effects can be reduced by avoiding potential sources of drinking water that may be associated with extreme pesticide contamination. For example, some of the highest pesticide levels reported in the monitoring data (Appendix C) were found in small bodies of water in agricultural areas. These waters have high potential for contamination and little potential for dilution. In fact, pesticide leachate and runoff in wells near agricultural activities caused some of the poisoning incidents described in Table 11. There are other situations that could potentially result in extreme pesticide contamination of water, such as the direct application of pesticides to water to control malaria-bearing mosquitoes, schistosome-bearing snails, or aquatic weeds. There are also unconfirmed reports from Africa and South America of people adding pesticides to rivers and lakes to stun or kill fish, which then float to the top and are collected for consumption. Consequently, field personnel looking for water supplies should be wary of using small bodies of water in agricultural areas, and they should be alert to the possibility of extreme contamination levels when they are in areas with water that may require direct application of pesticides.

However, it may not always be possible to avoid using small agricultural ponds or ditches. Usually it will not be obvious that water has recently been sprayed for pest control or that a well has been badly contaminated. Thus, in order to prevent the use of water with extreme pesticide content, field methods for detecting gross pesticide contamination are needed. However, developing suitable detection methods is very difficult because there are so many different pesticides that are used around the world and can be found in water (see Table 12 and Appendix C).

The organophosphates are a candidate class of pesticide for field detection because of their acute toxicity and widespread use, estimated to be 60% of pesticide use outside of the U.S. and Western Europe by 1990. Field methods may already exist for detecting total organophosphates in water. The organochlorines are also widely used, particularly in the developing countries. For example, BHC and DDT are estimated to constitute 50%

of the pesticides used in India. The organochlorines do not lend themselves to field detection. Their detection requires equipment (e.g., gas chromatographs) that is not normally available in the field. However, immunoassay techniques may be the basis for future development of field methods for individual organochlorine pesticides.

If the military undertakes research to develop organochlorine-pesticide detection capabilities, lindane appears to be the best pesticide for initial consideration. Lindane is used in large quantities in practically all parts of the world, and it is soluble in water at levels well above acutely toxic concentrations. Of all the pesticides, lindane has the greatest likelihood of being present at toxic levels and consequently appears to pose the greatest threat to troop health. The other organochlorine pesticides used in very large amounts, DDT and toxaphene, appear to present less significant risks.

An important issue related to the detection of high pesticide contamination is the extent to which taste and odor can be relied upon to protect against the use of dangerously contaminated waters. Two separate incidents involving the contamination of public-water supplies, with resulting illness, suggest that odor cannot be used as a reliable warning, at least not for all pesticides. In one case, local health officials received complaints that the water tasted like gasoline or kerosene. 16 In the other case, one resident complained that the tap water was milky white and smelled like insecticide spray. 15 The water contaminant in both of these incidents was chlordane, which has a reported odor threshold of 0.5 to 2.5 µg/L (see Appendix B). The chlordane concentrations that caused these poisonings were up to 6600 μ g/L in one case ¹⁶ and up to 1.2 x 10⁶ μ g/L in the other. ¹⁵ In both incidents, however, the pesticide concentrations were above organoleptic detection thresholds and were high enough to give the water an objectionable taste. Nevertheless, at least some people still drank enough of the pesticide-containing water to suffer a toxic reaction. The foul taste brought the situations to the attention of public health officials and no doubt served to limit the extent of exposure; however, the fact remains that some people still chose to drink the water and were poisoned. This demonstrates that taste and odor cannot be relied upon to protect the individual soldier against all dangerously high pesticide contaminations.

RECOMMENDATIONS FOR FURTHER RESEARCH

- 1. Protection against the use of water highly contaminated by pesticides requires the ability to detect contamination. Because there are so many individual pesticides that could be present, techniques for detecting classes or groups of pesticides would be of greatest practicality in determining that a water source is safe to drink.
- 2. Some pesticides are used widely enough and are toxic enough to warrant the development of field-detection techniques for individual pesticides. Lindane is the most notable among these, but the development of tests for some of the other pesticides likely to be present at high concentrations should also be considered. The new immunoassay techniques appear to be promising for this purpose.
- 3. There may be situations in which the only available water is highly contaminated by pesticides. The treatability of pesticides most likely to be contaminating the water should be evaluated. Lindane is the most notable among these, but the organophosphates (e.g., malathion and parathion) should also be considered for study.

REFERENCES

- 1. Layton, D. W., B. J. Mallon, T. E. McKone, Y. E. Ricker, and P. C. Lessard, Evaluation of Military Field Water Quality. Volume 2. Constituents of Military Concern from Natural and Anthropogenic Sources. Part 1. Organic Chemical Contaminants, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-21008, Vol. 2, Part 1 (1988).
- 2. International Group of National Associations of Agrochemical Manufacturers, "The Pesticide World Market Current Trends and Development of New Products," <u>GIFAP Bull.</u> 9, 1-6 (1983).
- 3. El-Sebar, A. H., and S. A. Soliman, "Mutagenic and Carcinogenic Chemicals in the Egyptian Agricultural Environment," Basic Life Sci. 21, 119-126 (1982).
- 4. International Group of National Associations of Agrochemical Manufacturers, "Comparative Levels of Crop Protection Chemicals Used in France and All over the World," <u>GIFAP Bull.</u> 7, 3-6 (1981).
- 5. Yorinori, J. T., "Pesticides in Brazilian Agriculture," <u>Tropical Agriculture Research</u>
 <u>Series No. 163</u>, Tropical Research Center, Ministry of Agriculture, Forestry, and
 Fisheries, Yatabe, Japan, (1983), p. 113.
- 6. Schumacher, E. G., "Pesticides in China," Chem. Indust. 12, 460-462 (1983).
- 7. Meister Publishing Co., "A Look at World Pesticide Markets," Farm Chemicals 144, 55, 58, 60 (1981).
- 8. Eichers, T. R., <u>Farmer's Use of Pesticides</u>, U.S. Department of Agriculture, Economics, Statistics, and Cooperatives Service, Agricultural Economic Reports, Washington, DC (1964, 1966, 1971, 1976, 1982).
- 9. Information Research Ltd., <u>Future World Market Demands for Pesticides and Their Specific Roles in Crop Protection</u>, (London, UK, 1975).

- 10. U.S. Environmental Protection Agency, National Study of Hospital Admitted Pesticide Poisonings, Epidemiologic Studies Program, Human Effects Monitoring Branch, U.S. Environmental Protection Agency, Technical Services Division, Office of Pesticide Programs, Washington, DC, (1976).
- 11. Feinglass, E. J., "Arsenic Intoxication from Well Water in the United States," New Engl. J. Med. 288, 828-830 (1973).
- 12. Lim, G.-S., "Integrated Pest Control: Integrated Pest Control in the Developing Countries of Asia," <u>Environment and Development</u>, D. M. Dworkin, Ed. (SCOPE Miscellaneous Publication, Indianapolis, IN, 1974), pp. 47-76.
- 13. DeKraay, W. H., "Pesticides and Lymphoma in Iowa," J. Iowa Med. Soc. 68(2), 50-53 (1978).
- 14. Failing, F., C. Rimer, R. Wooley, S. H. Sandifer, R. H. Hutcheson, Jr., J. W. Saucier, C. Ward, and F. W. Kutz, "Chlordane Contamination of a Municipal Water System--Tennessee," Morb. Mortal. Wkly. Rep. 25(15), 117 (1976).
- 15. Harrington, J. M., E. L. Baker, Jr., D. S. Folland, J. W. Saucher, and S. H. Sandifer, "Chlordane Contamination of a Municipal Water System," Environmental Res. 15, 155-169 (1978).
- 16. Silverman, P., M. Hreha, A. Brunwasser, A. Tuttle, D. Failer, C. Vukotich, and N. M. Richards, "Chlordane Contamination of a Public Water Supply--Pittsburgh, Pennsylvania," Morb. Mortal. Wkly. Rep. 30(46), 571-578 (1981).
- 17. Taylor, A., Jr., G. F. Craun, G. A. Faich, L. J. McCabe, and E. J. Gangarosa, "Outbreaks of Waterborne Diseases in the United States, 1963-1970," J. Infect. Dis. 125, 329-331 (1972).
- 18. Black, R. E., M. A. Horwitz, and G. F. Craun, "From the Center for Disease Control: Outbreaks of Waterborne Disease in the United States, 1975," J. Infect. Dis. 137, 370-374 (1978).

- 19. Dean, A., J. Pugh, K. Embrey, J. Cain, L. Lane, B. Brackin, and F. E. Thompson, Jr., "Organophosphate Insecticide Poisoning among Siblings--Mississippi," Morb. Mortal. Wkly. Rep. 33(42), 592-598 (1984).
- 20. Craun, G. F., "Waterborne Outbreaks in the United States 1971-1978," American Water Works Association 1980 Annual Conference Proceedings (Atlanta, GA, 1980), p. 99.
- 21. Food and Agriculture Organization, <u>Pesticide Residues in Food: 1977 Evaluations</u>, <u>Data and Recommendations of the Joint Meeting of the FOA Panel of Experts on Pesticide Residues and the Environment and the WHO Expert Group on Pesticide Residues, Geneva, 6-15 December 1977 (FAO/WHO, Rome, Italy, 1978).</u>
- 22. Lewis, Sr., R. J., and R. L. Tatken, Eds., Registry of Toxic Effects of Chemical Substances, Vols. 1 and 2, 1980 ed. (U.S. Department of Health and Human Services, Washington, DC, 1982).
- 23. Thomson, W. T., Agricultural Chemicals Book 1. Insecticides, Acaricides and Ovicides (Thomson Publications, Fresno, CA, 1982-1983).
- 24. Worthing, C. R., and S. B. Walker, Eds., <u>The Pesticide Manual: A World Compendium</u>, <u>7th ed</u>. (British Crop Protection Council, Lavenham, Suffolk, England, 1983).
- 25. U.S Environmental Protection Agency, Environmental Facts; Aldrin Dieldrin, (U.S. Environmental Protection Agency, Washington, DC, 1973-733-412/5 3-1, 1973).
- 26. U.S. Department of Health, Education, and Welfare, Special Occupational Hazard Review for Aldrin/Dieldrin, U.S. Department of Health, Education, and Welfare, Center for Disease Control, Rockville, MD (1978).
- 27. Meier, P. G., D. C. Fook, and K. F. Lagler, "Organochlorine Pesticide Residues in Rice Paddies in Malaysia, 1981," Bull. Environ. Contam. Toxicol. 30, 351-357 (1983).
- 28. Meister, R. T., G. L. Berg, C. Sine, S. Meister, and J. Poplyk, Eds., <u>Farm Chemicals</u> <u>Handbook</u> (Meister Publishing Co., Willoughby, OH, 1984).

- 29. U.S. Environmental Protection Agency, Water-Related Environmental Fate of 129
 Priority Pollutants, Vol. 1: Introduction and Technical Background, Metals and
 Inorganics, Pesticides and PCB's, U.S. Environmental Protection Agency,
 Washington, DC, NTIS, PB80-204373, EPA-440/4-79-029a, Washington, DC (1979).
- 30. Van Nostrand Reinhold Co., Inc., "Aldrin," <u>Dangerous Prop. Ind. Mater. Rep.</u> 1(5), 31-32 (1981).
- 31. Verschueren, K. V., <u>Handbook of Environmental Data on Organic Chemicals</u> (Van Nostrand Reinhold Company, New York, NY, 1983), 2nd ed.
- 32. von Rumker, R., E. W. Lawless, A. F. Meiners, K. A. Lawrence, G. L. Kelso, and F. Horay, <u>Production</u>, <u>Distribution</u>, <u>Use and Environmental Impact Potential of Selected Pesticides</u>, U.S. Environmental Protection Agency, Washington, DC, EPA-540/1-74-001 (1974).
- 33. World Health Organization/Food and Agriculture Organization, 1970 Evaluations of Some Pesticide Residues in Food, WHO, Geneva, Switzerland, (1971).
- 34. Hayes, W. J., Jr., Pesticides Studied in Man (Williams & Wilkins, Baltimore, 1982).
- 35. International Agency for Research on Cancer, <u>IARC Monographs on the Evaluation</u>
 of Carcinogenic Risk of Chemicals to Man: Some Halogenated Hydrocarbons
 (International Agency for Research on Cancer, Geneva, Switzerland, 1979), vol. 20.
- 36. International Agency for Research on Cancer, <u>IARC Monographs on the Evaluation</u>
 of Carcinogenic Risk of Chemicals to Man: Some Organochlorine Pesticides,
 (International Agency for Research on Cancer, Geneva, Switzerland, 1974), vol. 5.
- 37. Mukherjee, D., B. R. Roy, J. Chakraborty, and B. N. Ghosh, "Pesticide Residues in Human Foods in Calcutta," <u>Indian J. Med. Res.</u> 72, 577-595 (1980).

- 38. Cinar, A., and N. Ergun, "Estimation of Residue Levels of DDT and its Metabolites in the Main Drainage Channels of Lower Seyhan Delta Throughout 1979," J. Turkish Phytopath. 11(3), 101-106 (1982).
- 39. Willis, G. H., L. L. McDowell, C. E. Murphree, L. M. Southwick, and S. Smith, Jr., "Pesticide Concentrations and Yields in Runoff from Silty Soils in the Lower Mississippi Valley," J. Agric. Food Chem. 31, 1171-1177 (1983).
- 40. Wershaw, R. L., P. J. Burcar, and M. C. Goldberg, "Interaction of Pesticides with Natural Organic Material," <u>Env. Sci. Technol.</u> 3, 271-273 (1969).
- 41. Food and Agriculture Organization, 1969 Evaluations of Some Pesticide Residues in Food—The Monographs, FAO/WHO, Rome, Italy, WHO Technical Report Series No. 458 (1970).
- 42. Hayes, W. J., Jr., W. E. Dale, and C. I. Pirkle, "Evidence of Safety of Long-Term, High, Oral Doses of DDT for Man," Arch. Environ. Health 22, 119-135 (1971).
- 43. Hsieh, H. C., "DDT Intoxication in a Family of Southern Taiwan," Arch. Ind. Hyg. Occup. Med. 10, 344-346 (1954).
- 44. Bartsch, E., "Diazinon II. Residues in Plants, Soil, and Water," Residue Rev. 51. 37-68 (1974).
- 45. Teimoory, S., and M. Hosseiny-Shekarabi, "Residue Estimation of Some Insecticides Used Against Rice Stem Borer in Paddy Fields in the Field Water," <u>Entomol. Phytopathol. Appl. 47</u>, 79-97 (1979).
- 46. Doull, J., C. D. Klaassen, and M. O. Amdur, Eds., <u>Casarett and Doull's</u>
 Toxicology-The Basic Science of Poisons (Macmillan, New York, NY, 1980).
- 47. National Research Council Safe Drinking Water Committee, <u>Drinking Water and Health, Volume 1</u> (National Academy Press, Washington, DC, 1977).

- 48. Sanborn, J. R., B. M. Francis, and R. L. Metcalf, <u>The Degradation of Selected Pesticides in Soil: A Review of Published Literature</u>, U.S. NTIS, Washington, DC, PB-272353, (1977), p. 633.
- 49. World Health Organization/Food and Agriculture Organization, <u>Data Sheets on</u> Pesticides, No. 17, Dieldrin, WHO, Geneva, Switzerland, VBC/D5/75.17, (1975).
- 50. Lenon, H., L. Curry, A. Miller, and D. Oatulski, "Insecticide Residues in Water and Sediments from Cisterns on the U. S. and British Virgin Islands-1970,"

 Pestic. Monit. J. 6(3), 188-193 (1972).
- 51. Worthing, C. R., Ed., <u>The Pesticide Manual: A World Compendium</u> (British Crop Protection Council, Croyden, England, 1979), 6th ed.
- 52. Singmaster, III, J. A., Environmental Behavior of Hydrophobic Pollutants in Aqueous Solutions, Ph.D. Thesis, University of California, Davis, CA (1975).
- 53. Hunter, C. G., and J. Robinson, "Pharmacodynamics of Dieldrin(HEOD) I: Ingestion by Human Subjects for 18 Months," Arch. Environ. Health 15, 614-626 (1967).
- 54. Jagar, K. W., Aldrin, Dieldrin, Endrin, and Telodrin: An Epidemiological and Toxicological Study of Long-Term Occupational Exposure (American Elsevier Publishing Co., Inc., New York, NY, 1970).
- 55. Hunter, C. G., J. Robinson, and M. Roberts, "Pharmacodynamics of Dieldrin (HEOD): Ingestion by Human Subjects for 18 to 24 Months, and Postexposure for Eight Months," Arch. Environ. Health 18, 12-21 (1969).
- 56. Patil, K. C., F. Matsumura, and G. M. Boush, "Degradation of Endrin, Aldrin, and DDT by Soil Microorganisms," Appl. Microbiol. 19(5), 879-881 (1970).
- 57. World Health Organization/Food and Agriculture Organization, <u>Data Sheets on</u>
 Pesticides, No. 1, Endrin, WHO, Geneva, Switzerland VBC/D5/75.17, (1975).

- 58. Gunn, D. L., "General Introduction: Some Environmental and Toxicological Perspectives. Part 1: Uses and Abuse of DDT and Dieldrin," <u>Foreign Compound Metabolism in Mammals</u>, D. E. Hathway, Ed. (The Chemical Society, Burlington House, London, UK, 1975), vol. 3.
- 59. Eichelberger, J. W., and J. J. Lichtenberg, "Persistence of Pesticides in River Water," Environ. Sci. Technol. 5(8), 541-544 (1971).
- 60. Hayes, W. J., Jr., <u>Clinical Handbook on Economic Poisons: Emergency Information for Treating Poisoning</u>, U.S. Government Printing Office, Washington, DC, Public Health Service Publication No. 476, (1963).
- 81. Commission of the European Communities, <u>Criteria (Dose/Effects Relationships) for Organochlorine Pesticides</u>, M. Mercier, Ed. (Pergamon, New York, NY, 1981).
- 62. Vettorazzi, G., <u>International Regulatory Aspects for Pesticide Chemicals. Volume 1:</u>
 Toxicity Profiles (CRC Press, Boca Raton, FL, 1979).
- 63. Shea, K. P., "Profile of a Deadly Pesticide," Environment 19, 6-12 (1977).
- 64. Herin, R. A., A. A. Komeil, D. G. Graham, A. Curley, and M. B. Abou-Donia, "Delayed Neurotoxicity Induced by Organophosphorus Compounds in the Wild Mallard Duckling: Effect of Leptophos," <u>J. Environ. Path. Toxicol.</u> 1, 235-240 (1978).
- 65. Shea, K. P., "Nerve Damage," Environment 16, 6-10 (1974).
- 66. Eto, M., Organophosphorus Pesticides: Organic and Biological Chemistry (CRC Press, Cleveland, OH, 1974).
- 67. Purnomo, A., and A. Hanafi, <u>Agricultural Pesticides in Brackish Water Environment and Suggestions for Protecting Aquaculture Resources</u>, Association of South East Asian Nations, Semarang, Indonesia, Asean 77/FA.EgA/Rpt. 2 (1977).
- 68. Riskallah, M. R., M. M. El-Sayed, M. E. Hegazy, N. S. Takla, and S. A. Hindi, "Studies on the Stability of Leptophos and the Persistence of Chlorpyrifos in Water under Laboratory Conditions," Int. Pest Control 251, 110-113 (1983).

- 69. U.S. Environmental Protection Agency, <u>The Report of the Leptophos Advisory</u>

 <u>Committee</u>, U.S. Environmental Protection Agency, Washington, DC (1976).
- 70. Osman, A. Z., Y. A. El-Zawakry, I. Y. Mostafa, and A. Hassan, "A Study on the Persistence of Leptophos in Egyptian Soil and its Breakdown by Rhizobium Species,"

 <u>Isot. Radiat. Res.</u> 11, 51~59 (1979).
- 71. Hassan, A., and F. P. W. Winteringham, "Leptophos," Chemosphere 11, 789-790 (1977).
- 72. Abou-Donia, M. B., and D. G. Graham, "Delayed Neurotoxicity of Subchronic Oral Administration of Leptophos to Hens: Recovery During Four Months after Exposure,"

 <u>J. Toxicol. Environ. Health</u> 5, 1133-1147 (1979).
- 73. Abou-Donia, M. B., "Increased Acid Phosphatase Activity in Hens Following an Oral Dose of Leptophos," <u>Toxicol. Lett. 2</u>, 199-203 (1978).
- 74. Reinders, J. H., L. G. Hansen, R. L. Metcalf, and R. A. Metcalf, "In Vitro and In Vivo Inhibition of Chicken Brain Neurotoxic Esterase by Leptophos Analogs," <u>Pestic. Biochem. Physiol.</u> 20, 67-75 (1983).
- 75. Metcalf, R. L., B. M. Frances, R. A. Metcalf, and L. G. Hansen, "Acute and Delayed Neurotoxicity of Leptophos Analogs," <u>Pestic. Biochem. Physiol. 20</u>, 57-66 (1983).
- 76. Velsicol Chemical Corp., Chicago, IL, private communication (January, 1985).
- 77. U.S. Environmental Frotection Agency, <u>Ambient Water Quality Criteria for Hexachlorocyclohexane</u>, U.S. Environmental Protection Agency, Office of Water Regulations and Standards, Criteria and Standards Division, Washington, DC, 440/5-80-954 (1980).
- 78. Food and Agriculture Organization, <u>Pesticide Residues in Food 1976 Report of the Joint Meeting of the FAO and WHC Panels of Experts on Pesticide Residues and the Environment</u>, WHO, Geneva, WHO Technical Report Series No. 612 (1977), p. 25.

- 79. Hayes, W. J., Jr., <u>Toxicology of Pesticides</u> (Williams & Wilkins Company, Baltimore, MD, 1975).
- 80. Baselt, R. C., <u>Disposition of Toxic Drugs and Chemicals in Man</u> (Biomedical Publications, Davis, CA, 1982), 2nd ed.
- 81. World Health Organization, Recommended Health-Based Limits in Occupational Exposure to Pesticides, WHO, Geneva, Switzerland, Technical Report Series No. 677 (1982).
- 82. Windholz, M., and S. Budavari, Eds., The Merck Index (Merck & Co., Inc., Rahway, NJ, 1983), 10th ed.
- 83. Mulla, M.S., L.S. Mian, and J.A. Kawecki, "Distribution, Transport, and Fate of the Insecticides Malathion and Parathion in the Environment," <u>Residue Rev.</u> 81, 116-125 (1981).
- 84. International Agency for Research on Cancer, "Malathion," <u>IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans-Miscellaneous Pesticides</u> (International Agency for Research on Cancer, Geneva, Switzerland, 1983) vol. 30, pp. 103-129.
- 85. Moeller, H.C., and J.A. Rider, "Plasma and Red Blood Cell Cholinesterase Activity as Indications of the Threshold of Incipient Toxicity of Ethyl-p-nitrophenyl Thionobenzenephosphate (EPN) and Malathion in Human Beings," <u>Toxicol. Appl. Pharmacol.</u> 4, 123-130 (1962).
- 86. Food and Agriculture Organization, 1975 Evaluations of Some Pesticide Residues in Food, WHO, Geneva, Switzerland, Pesticide Residue Series No. 5 (1976).
- 87. McEwen, F. L., and G. R. Stephenson, The Use and Significance of Pesticides in the Environment (John Wiley and Sons, New York, NY, 1979), pp. 282.
- 88. Beynon, K. I., D. H. Hutson, and A. N. Wright, "The Metabolism of Vinyl Phosphate Insecticides," Residue Rev. 47, 55-142 (1973).

- 89. Vevai, E. J., "Phosphamidon—Know Your Pesticide, Its Salient Points and Uses in Pest Control," Pesticides 8, 10-17 (1974).
- 90. von Rumker, R., and F. Horay, <u>Pesticide Manual</u>, U.S. Department of State, Agency for International Development, Shawnee Mission, KA (1972).
- 91. Casida, J. E., R. L. Holmstead, S. Khalifa, J. R. Knox, T. Ohsawa, K. J. Palmer, and R. Y. Wong, "Toxaphene Insecticide: A Complex Biodegradable Mixture," <u>Science</u> 183, 520-521 (1974).
- 92. Pollock, G. A., and W. W. Kilgore, "Toxaphene," Residue Rev. 69, 87-140 (1978).
- 93. IRPTC, <u>IRPTC Data Profile on: Toxaphene</u>, International Register of Potentially Toxic Chemicals, United Nations Environmental Programme, (IRPTC/UNEP, Palais des Nations, Geneva, Switzerland, 1984).
- 94. Hughes, R. A., G. D. Veith, and G. F. Lee, "Gas Chromatographic Analysis of Toxaphene in Natural Waters, Fish and Lake Sediments," <u>Water Res.</u> 4, 547-558 (1970).
- 95. U.S Department of the Army, <u>Technical Manual: Water Quality Analysis Sets</u>, Headquarters, Department of the Army, Washington, DC, TM 5-6630-215-12 (1977), pp. 2-36 to 2-39.
- 96. Raju, G. S., K. Visweswariah, J. M. M. Galindo, A. Khan, and S. J. Majumder, "Insecticide Pollution in Potable Water Resources in Rural Areas and the Related Decontamination Techniques," <u>Pesticides 16</u>, 3-6 (1982).

APPENDIX A PESTICIDE USE--INFORMATION SOURCES

The literature of pesticide usage statistics is voluminous. At present, there is no single guide to this subject on a worldwide basis. In the following sections, the characteristics of available pesticide data sources and their use in this project will be discussed. These data sources and information gathered from various journal articles have provided a basis for the selection of pesticides to be further examined and screened.

I. International

- A. <u>FAO Production Yearoook</u>. This compilation is the most complete annual record of world agricultural statistics. It is compiled from national reports. Pesticide data generally refer to pesticides used in, or sold to agriculture by country. They are shown in terms of active ingredients, except for some countries where data refer to formulation weights. Unfortunately, only a few major organochlorines (DDT, BHC, HCB, lindane, aldrin, and toxaphene) and some organophosphorus compounds (parathion and malathion) are identified individually. All other pesticides are listed by group such as pyrethrum, botanical insecticides, arsenicals, carbamate insecticides, etc. This compilation has been very useful in identifying pesticide usage in foreign countries.
- B. Summary of Replies to the Questionnaire on Good Agricultural Practice in the Use of Pesticides in the Production of Some Important Selected Foods. This document was prepared for the Joint FAO/WHO Food Standards Program, Codex Alimentarius Commission by the Canadian Delegation to the Codex Committee on Pesticide Residues. It provides statistical tabulations on (1) crop-pesticide-country, (2) country-crop, (3) pesticide-crop, and (4) pesticide-country. There were 34 countries cooperating in this survey. However, not all of the major crops were included.
- C. <u>Farm Chemicals</u>. This monthly trade journal periodically publishes an exclusive report on U.S. and world markets by crop, type of pesticide, and area of the world. Its statistics and forecasts are based on confidential surveys of leading international marketers. The last report, "A Look At World Pesticide Markets," was issued in 1981. In this report, the five largest single-crop markets worldwide in 1980 were identified as corn, rice, cotton, soybeans, and wheat. Further, it projected that by

1985 worldwide sales would top \$14.5 billion and that U.S. sales would exceed \$4.4 billion at the user's level. Big increases were also projected for Brazil, the People's Republic of China, Mexico, and Japan.

- D. <u>GIFAP Bulletin</u>. ⁴ This is the official publication of the International Group of National Associations of Agrochemical Manufacturers. Issued monthly in Brussels, Belgium, it covers all aspects of agricultural chemicals. Information on production, supply, marketing, and use of pesticides in various member countries is provided periodically by types of pesticides. Specific crop-pesticide information is provided periodically. It is a good source for data on marketing and supply of pesticides on an international basis.
- E. Future World Market Demands for Pesticides and Their Specific Roles in Crop Protection.⁵ This is perhaps the only publication that provides data on pesticide usage by geographical regions of the world. Although the report was published in 1975, it does contain a comprehensive review of the status of the world market for pesticides at that time. It also gives some tentative estimates of the likely demand for each of the main classes of pesticides up to 1990, arranged by chemical types, selected countries, and some major crops.

II. United States

A. U.S. Department of Agriculture Publications

- 1. The Pesticide Review.⁶ This is an annual statistical compilation of pesticide use, production, and trade in the U.S., issued by the Department's Stabilization and Conservation Service since 1952. This publication is probably the most widely used and quoted source of data on pesticides, their production, and use in the United States. Until 1978 it was usually published about 18 months after the end of the most recent years for which data were included. Unfortunately, the 1978 report was the last one issued.
- 2. <u>Farmer's Use of Pesticides</u>. This is a periodic farm survey on the use of pesticides on different crops and classes of livestock in different areas. These data were to provide a basis for estimating the costs and benefits of pesticides and to serve as a measure of change in pesticide use. To date, five separate surveys have been published:

1964, 1966, 1971, 1976, and 1982. Major uses are listed by types of pesticides and by crops. These surveys are the most comprehensive available on pasticide use in this country. Unfortunately, the 1982 survey excluded California and twelve other states in its estimates.

3. Farm Pesticide Supply-Demand Trends. This report is propored annually to show the pesticide situation and outlook information. Supply data are based on a survey of pesticide manufacturers and on discussions with distributors, while demands are based on January farmer planting intentions and on available data on use rate. One of the most helpful tables lists herbicide, insecticide, and fungicide usage by crop for the U.S. and the rest of the world in 1980. This provides important information on the relative amount of pesticides used on various crops in the U.S. and the rest of the world. These reports have been issued annually since 1975.

B. U.S. International Trade Commission.

1. Synthetic Organic Chemicals—United States Production and Sales. 9
This annual report covers most synthetic organic chemicals. It does not include inorganic pesticides nor all organic pesticides. Data are reported by producers for only those times where the volume of production or sales exceeds 1000 pounds or the value of sales exceeds \$1000. One chapter is devoted to pesticides sales and production by dollar volume and pounds. Very few of the major pesticides are accounted for individually, and most of them are lumped together into large, general categories.

C. U.S. Environmental Protection Agency.

1. The most recent publication issued by EPA, <u>Pesticide Industry Sales</u> and <u>Usage</u>, <u>1982 Market Estimates</u> provides user expenditures for pesticides, and the volume of active ingredients for U.S. pesticides used by class and sector for 1982.

D. Others

1. The Kline Guide to the Chemical Industry. 11 This guide, revised periodically, provides information on U.S. production, sales, and prices of selected basic toxicants from 1970 to 1979. The pesticide section is limited to synthetic organic toxicants and formulated pesticides.

REFERENCES FOR APPENDIX A

- 1. Food and Agriculture Organization, <u>FAO Production Yearbook</u> (Food and Agriculture Organization of the United Nations, Rome, Italy, 1983), vol. 16.
- 2. Codex Committee on Pesticide Residues, <u>Summary of Replies to the Questionnaire</u> on Good Agricultural Practice in the Use of Pesticides in the Production of Some <u>Important Selected Foods</u>, Joint FAO/WHO Food Standards Programs Codex Alimentarius Commission, Department of Agriculture, Ottawa, Canada (1982).
- 3. Meister Publishing Co., "A Look at World Pesticide Markets," Farm Chemicals 144, 55, 58, 60 (1981).
- 4. International Group of National Associations of Agrochemical Manufacturers, "Comparative Levels of Crop Protection Chemicals Used in France and All over the World," GIFAP Bull. 7, 3-6 (1981).
- 5. Information Research Ltd., <u>Future World Market Demands for Pesticides and Their Specific Roles in Crop Protection</u> (London, UK, 1975).
- 6. U.S. Department of Agriculture, <u>The Pesticide Review</u>, U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service, Washington, DC (1952-1978).
- 7. Eichers, T. R., <u>Farmer's Use of Pesticides</u>, U.S. Department of Agriculture, Economics, Statistics, and Cooperatives Service, Agricultural Economic Reports, Washington, DC (1964, 1966, 1971, 1976, 1982).
- 8. Eichers, T. R., and T. R. Serletis, <u>Farm Pesticide Supply-Demand Trends</u>, United States Department of Agriculture, Economic Research Service, Agricultural Economic Reports, Washington, DC (1982).
- 9. U.S. International Trade Commission, <u>Synthetic Organic Chemicals—United States</u>
 Production and Sales, 1982, Washington, DC, USITC Publication 1422, (1982).

- 10. U.S. Environmental Protection Agency, <u>Pesticide Industry Sales and Usage: 1982</u>

 <u>Market Estimates</u>, U.S. Environmental Protection Agency, Economic Analysis Branch, Benefits and Field Studies Division, Office of Pesticide Programs, Washington, DC (1982).
- 11. Kline, C. E., <u>The Kline Guide to the Chemical Industry</u>, S. Curry and S. Rich, Eds. (Fairfield, NJ, 1980), 4th ed.

APPENDIX B

ORGANOLEPTIC THRESHOLD CONCENTRATIONS IN WATER FOR SEVERAL PESTICIDES

This appendix presents the threshold concentrations in water for the detection of organoleptic (e.g., taste and odor) properties of several pesticides (Table B-1). Odor-detection data thresholds are given for all pesticides listed. In addition, a taste threshold is reported for 2,4-D.

Table B-1. Organoleptic threshold concentrations in water for several pesticides.

Pesticide	Threshold concentrationa	Ref.
Aldrin	0.017 ppm min. odor	1
Aluminum phosphide	0.00020 mg/L min. odor ^b	2
Chlordane	0.0005 ppm min. odor ^C 0.0025 ppm min. odor ^d	1 1
Chlorpyrifos	0.0008 mg/L min. odor 0.0016 mg/L max. odor 0.0012 mg/L mean odor	3
DDT	0.35 ppm min. odor	1
Dieldrin	0.041 ppm min. odor	1
Dinoseb	0.032 mg/L min. odor ^e 0.08 mg/L max. odor 0.056 mg/L mean odor	3
Endrin	0.018 ppm min. odor	1
Heptachlor	0.02 ppm min. odor	1
Lindane	12.0 ppm min. odor 0.00125 ppm min. odor ^f	1
Malathion	1.0 ppm min. odor	1
Methoxychlor	4.7 ppm min. odor	1
Azinphosmethyl (guthion)	0.0002 ppm min. odor	1
Dimethyl parathion	0.0123 ppm min. odor	1
Oxydemeton	0.01 mg/L min. odor	4
Parathion	0.04 ppm min. odor	1

Table B-1. (Continued)

Pesticide	Threshold concentrationa	Ref.
Toxaphene	0.14 ppm min. odor 0.0052 mg/L min. odor8	1 5
Trichlorfon	0.01 mg/L min. odor	4
2,4-D	3.13 ppm min. odor 0.01 mg/L min. taste8	1 6
2,4,5-T	2.92 ppm min. odor	1

a At 60°C in water unless otherwise indicated.

b Aluminum phosphide reacts with water to release phosphine gas, hydrogen phosphide. This value is for phosphine in water.

C At 60°C in water; 5% granular.

d At 60°C in water; 40% wettable powder.

e At 60°C in water; butterscotch odor.

f At 60°C in water; 11.7% gamma-isomer, and 13.6% other isomers.

g In water; no temperature given.

REFERENCES FOR APPENDIX B

- 1. Sigworth, E. A., "Identification and Removal of Herbicides and Pesticides," J. Am. Water Works Assoc. 57, 1016-1022 (1965).
- 2. Amoore, J. E., "Odor as an Aid to Chemical Safety: Odor Thresholds Compared with Threshold Limit Values and Volatilities for 214 Industrial Chemicals in Air and Water Dilution," J. Appl. Toxicol. 3, 272-290 (1983).
- 3. Alexander, H. G., W. M. McCarthy, E. A. Bartlett, and A. N. Syverud, "Aqueous Odor and Taste Threshold Values of Industrial Chemicals," J. Am. Water Works Assoc. 74, 595-599 (1982).
- 4. American Society for Testing and Materials (ASTM), Compilation of Odor and Taste
 Threshold Values Data, F. A. Fazzalari, Ed. (ASTM, Philadelphia, PA, 1978).
- 5. Cohen, J. M., G. A. Rourke, and R. L. Woodard, "Effect of Fish Poisons on Water Supplies. Part 2: Odor Problems," J. Am. Water Works Assoc. 53, 49-52 (1961).
- 6. McKee, J. E., and H. W. Wolf, Eds., <u>Water Quality Criteria</u>, California State Water Resources Control Board, Sacramento, CA, California State Printing Office, 84278-983, Publication No. 3A (1963), 2nd ed.

APPENDIX C

MONITORING DATA FOR PESTICIDE LEVELS IN WATER

This appendix contains the water-quality monitoring data for the pesticides discussed in this report. The concentration data are for waters outside of the U.S. However, we have included some data for U.S. waters. In Tables C-1 through C-41, if only an average value was given, the maximum column shows zero.

The pesticides in this appendix are arranged alphabetically, except for those pesticides reported only once in the literature, which are listed together in the final table (Table C-42). An alphabetical list of the pesticides, giving the corresponding table number and Chemical Abstracts Service (CAS) registry number, is presented below. The underlined pesticides were subjected to secondary screening.

Compound	Table No.	CAS registry No.	Compound	Table No.	CAS registry No.
Aldrin	C-1	[309-00-2]	Dieldrin	C-20	[60-57-1]
Bayluscide	C-2	[140-04-8]	Dimethoate	C-21	[60-51-5]
Benthiocarb	C-3	[28249-77-6]	Endosulfan	C-22	[115-29-7]
ВНС	C-4	[608-73-1]	alpha-	C-23	[969-98-8]
alpha-	C-5	[319-84-6]	beta-	C-24	[33213-65-9]
beta-	C-6	[319-85-7]	Endrin	C-25	[72-20-8]
gamma- (lindane)	C-7	[58-89-9]	EPN	C-26	[2104-64-5]
Captafol	C-42	[2425-06-1]	Fluometuron	C-27	[2164-17-2]
Captan	C-8	[133-06-1]	Fluridone	C-28	[59756-60-4]
Carbaryl	C-9	[63-25-2]	Heptachlor	C-29	[76-44-9]
Chlordane	C-10	[57-74-9]	epoxide	C-30	[1024-57-3]
cis-	C-11	[5103-71-9]	Hexachlorobenzene	C-31	[118-74-1]
trans-	C-12	[5103-74-2]	Leptophos	C-42	[21609-90-5]
Chlorobenzilate	C-42	[510-15-6]	Malathion	C-32	[121-75-5]
CNP	C-13	[1836-77-7]	Methoxychlor	C-33	[72-43-5]
2,4-D	C-14	[94-75-7]	Mevinphos	C-34	[7786-34-7]
DDD, o,p'-	C-42	[53-19-0]	Monocrotophos	C-42	[6923-22-4]
DDD, p,p'-	C-15	[72-54-8]	Oxadiazon	C-35	[19666-30-9]
DDE, o,p'-	C-42	[3424-82-6]	Parathion	C-36	[5 5 -3 8-2]
DDE, p,p'-	C-16	[72-55-9]	Parathion, dimethyl	C-37	[298-00-0]
DDMU	C-42	[1022-22-6]	PCP-Na	C-42	[608-93-5]
DDT, o,p'-	C-17	[789-02-6]	<u>Phosphamidon</u>	C-38	[13171-21-6]
<u>DDT</u> , p,p'-	C-18	[50-29-3]	Toxaphene	C-39	[8001-35-2]
Diazinon	C-19	[333-41-5]	Trifluralin	C-40	[1582-09-8]
Dichlorvos	C-42	[62-73-7]	Trithion	C-41	[786-19-6]

Table C-1. Monitoring data for aldrin in water.

Cocation Page No. of Reported values (Lg)(L)							
type ⁸ samples Average Haximum Comments A, PARAMA RIVER, 600 KM ABOYE THE MOUTH REDITEDAMENA SEA, 10 MIL. FROM COAST REDITEDAMENA SEA, 10 MIL. FROM COAST REDITEDAMENA SEA, 10 MIL. FROM COAST LAFE KINNERET COASTAL AQUIFER	. · · · · · · · · · · · · · · · · · · ·	Water	No. of	Rep	orted values	(na/t.)	•
FORTERGAMENA SEA, 10 HT, FROM COAST OCE	Location	type ^a	samples	Average	Maximus	Coments	Reference
Mail of the motor of the moto	ARGENTINA, PARANA RIVER, 600 KM ABOVE THE MOUTH	Ale	71		0.0000		Poen 3 i
FORTISHE SAME AND STATE	TRANCE MEDITERDANEAN CEA 10 MT FROM COACT		: 5	00000	0.06.300		
LAKE KI INTORAL PONDS PND 96 0,00000 0,00000 C (CASTAL AQUIFER CASTAL AQUIFER CAS	TODO LOUI - TO DI GUILLO CONTROL CONTR	3	7	0.05200	0.18000		ME ST83
LAK 21 0.00000 0.00000 c GM 1 0.00000 0.00000 c ARIV 18 0.00000 0.00000 c ARIV 18 0.00000 0.00000 c ARIV 18 0.00000 0.00000 c HAK 1 0.00000 0.00000 c GM 3 0.00000 0.00000 c HAK 1 0.00000 0.00000 c GM 3 0.00000 0.00000 c HAK 1 0.000000 0.00000 c HAK 1 0.000000 0.000000 c H	FARCE, PEDITERRANEAN SEA, LINTORAL PONDS	PRO	96	00000°0	0.00200		MEST83
6M 1 0.00000 0.00000 c 6M 1 0.00000	ISRAEL, LAKE KIMMERET	ž	23	0.0000	0.0000	م	K AHA 74
GH 1 0.00000 0.00000 C C GM 1	ISRAEL, COASTAL AQUIFER	M 9	_	00000	00000	· u	LAHA74
GM 1 0.00000 0.00000 RIY 18 0.00000 0.00000 VAR 1 0.00000 0.00000 VAR 3 0.00000 0.00000 PIANDANG CAN 3 0.00000 PIANDANG CAN 3 0.00000 CAN 3 0.00000 0.00000 CAN 3 0.00000 <tr< td=""><td>COASTAL</td><td>AS</td><td>-</td><td>0.0000</td><td>0.0000</td><td></td><td>1 AWA 74</td></tr<>	COASTAL	AS	-	0.0000	0.0000		1 AWA 74
6M 1 0.00000 0.00000 C 6M 1	ISRAFL, CONSTAL AQUIFER	N9		0.0000	0.0000	, .	L AHA 74
Company Comp	COASTAL	NS		0.0000	00000		1 AUR 76
6M 1 0.00000 0.00000 C C C C C C C C C C C C	COASTAL	75	-	0.000	00000	, ,	I AURZA
6M 1 0.00000 0.00000 C C C C C C C C C C C C	COASTA.	15		0.000	00000	, ,	1 EUR 74
GW 1 0.00000 0.00000 C C C C C C C C C C C C	CORSTAL	7	-	00000		, ,	1 64674
GW 1 0.00000 0.00000 C C GW 1 0.00000	COASTAL	3		0.000			- 44874
GW 1 0.00000 0.00000 C C GW 1 0.00000 C GW 1 0.00000 C GW 1 0.00000 C GW 1 0.00000 GW	ISRAEL, COASTAL AQUIFER	3		00000		, د	- F10/4
GM 1 0.00000 0.00000 C C d C C C C C C C C C C C C C C		3		00000		. ر	1
Company Comp	ISRAEL, COASTAL AQUIFER	79		90000	00000	- 1	LAMA/4
FER BASIN SM 18 0.00000 0.00000 C. d C. d C. d C. d C.	I SPAEL . COASTAL ADMIFER	; 3		0000	0.0000	(a)	LANA 4
FER BASIN SM 5 0.00000 0.00000 C. d FER BASIN SM 5 0.00000 0.00000 C. d FER BASIN SM 5 0.00000 0.00000 C. d FIRED PAD 3 0.10000 0.00000 FIRED PAD 3 0.20000 0.00000			- ,	0.0000	0.0000	ບ	LAHA74
FER BASIN SM 5 0.00000 0.00000 C. d FER BASIN SM 5 0.00000 0.02000 LAK 1 0.00000 0.02000 COTA FIELD PAD 3 0.10000 0.02000 ARU SUMP PND 3 0.10000 0.02000 FIANDANG CAN 3 0.20000 0.02000 LAK 1 0.00000 0.02000 CAN 3 0.20000 0.02000 CAN 0.00000 0.02000 CAN 0.00000 0.02000	TAN ADICE BIVE	A T M	20	0.0000	0.0000	ر. د	CAL 781
FER BASIN SM 5 0.00000 0.02000 PIANDANG PAD 3 1.80000 0.00000 0.00000 KOTA FIELD PAD 3 0.10000 0.00000 0.00000 LARU SUMP PND 3 0.10000 0.00000 0.00000 PIANDANG CAN 3 0.10000 0.00000 0.00000 BURONG CAN 3 0.20000 0.00000 0.0000 CAN 1 0.00000 0.0000 0.0000	TIME CONTRACTOR AND TANAMAN AND AND THE PROPERTY OF TANAMAN AND THE PROPERTY OF TANAMA	× : ×	<u>∞</u>	0.0000	0.0000	C. d	GALABI
PIANDANG PAD 3 1.80000 0.00000 C COTA FIELD PAD 3 0.10000 0.00000 AARU SUMP PND 3 0.10000 0.00000 PIANDANG CAN 3 0.20000 0.00000 LAK 1 0.00000 0.00000 CAN 1 0.00000 0.00000 CAN 1 0.00000 0.00000 CAN 1 0.00000 0.00000	=	TS.	S	0.0000	0.02000		POLE83
PIANDANG PAD 3 1.80000 0.00000 COTA FIELD PAD 3 0.10000 0.00000 AARU SUMP PND 3 0.90000 0.00000 PIANDANG CAN 3 0.20000 0.00000 CAN 3 0.20000 0.00000 CAN 1 0.00000 0.00000 CAN 1 0.00000		Ę		0.0000	00000	U	GRE178A
D PAD 3 0.10000 0.0000 PND 3 0.90000 0.00000 CAN 3 0.10000 0.00000 CAN 3 0.20000 0.00000 UAK 1 0.00000 0.00000 CE e 0.00000	PALATSIA, KRIAM DIST, PERAK STATE, TANJONG PLANDANG	PAD	w	1.80000	<u>00000</u> ල		FIE83
PND 3 0.90000 0.00000 CAN 3 0.10000 0.00000 0.00000 CAN 3 0.20000 0.00000 CAN 1 0.000000 CAN 1 0.00000 CAN 1 0.000	PALATSIA, KRIAM DIST, PERAK STATE, SUNGET KOTA FIELD	PAD	m	0.10000	0000°°°		HE I E R 3
CAN 3 0.10000 0.0.000 CAN 3 0.20000 0.00000 LAK 1 0.00000 0.00.00 OCE e 0.00000	MALAYSIA, KRIAN DIST, PERAK STATE, JALAN BHARU SUMP	PNO	က	0.9000	00000°0		HE 1E83
BURONG CAN 3 0.20000 0.00300 LAK 1 0.00000 6.0000 C C C C C C C C C C C C C C C C C	MALAYSIA, KRIAN DIST, PERAK, PARIT TANJONG PIANDANG	CAN	m	0.10000	0.0		METERS
CAK 1 0.0000 6.55.00 c		CAR	m	0.20000	0.0000		METER3
300 a 300	RHODESIA, LAKE MCILMAINE	LAK		0.0000	6 90.3		CDE 1 298
	USA, ATLANTIC OCEAN	9CE	a	00000	6. P.F.	ب ن ر	Mea 76

Table C-1. (Continued)

	Water	No. of		Reported values (ug/L)	QUAL!	
Location	t ype ^a	caples -	Average	Max imum	Comments	Reference
USA, NURTH ATLANTIC OCEAN	90CE	•	0.0000	00000		104476
USA, NORTH ATLANTIC OCEAN	300	•		00000		
WORTH ATLANTIC	330	ν (00000	0.0000	د . د	JOHA 16
ACRIN ATLANTIC	33	.	00000	0.0000	ت ت	SCHOOL STATE
MONTH ATT ANTIG			0.0000	0.0000	c, f	JONA 76
MORTH ALLANIE	300 E	_	0.0000	0.0000	C, 9	JONEA 7 6
MUKIN AILANIIC	90CE	~	0.00500	0.0000	<u>د</u> .	JONA76
MONTH ATLANTIC	300	_	0.0000	0.0000		JONA 7 6
MENTH ALLANTIC	30C	**	0.0000	0.0000	<u>م</u>	30MA76
MORTH ATLANTIC	300		0.0000	0.0000	· -	NAMA 7 6
MORTH ATLANTIC	9ĊE	-	0.0000	0.0000	م	30WA 76
MORTH ATLANTIC	3%	,	0.00000	0.0000		STAMA?
MORTH ATLANTIC	350		0.0000	0.00000	, . ,	JOHA 76
MUKIN ATLANTIC	376	,_	0.0000	0.0000	<u>-</u>	30MA76
MOKIN ATLANTIC	300	-	0.0000	0.00000	Ç, f	30KA76
MORIN ATLANTIC	320	_	0.0000	0.0000		JOHA76
MUKIH AILANIIC	ÜCE	_	0.0000	0.0000	<u>ج</u> ،	JONA 76
MOKIN ATLANTIC	300		0.0000	0.0000	, ,	304476
MUKIN AILANIIC	300	_	0.0000	0.0000	ب ن '	JOHA 76
_	OCE.	~	0.0000	0.0000	6 .0	JONA 76
	300		0.0000	0.0000	ئ .	30KA76
CONTRACTOR OF STATE O	U		0.0000	0.0000	٦, ٦	J08/A76
MONTH AILANIIL	300		0.0000	0.0000	م د ان	JONA 76
	OCE	-	0.0000	0.0000	. b.	MAY 6
MONTH ALL ANTIG	300	_	0.0000	0.0000		30MA76
MORTH ATLANTIC	300	,	0.00000	0.0000	÷.	30RA76
	300		0.0000	0.0000	•	

Table C-1. (Continued)

0CE 1 0.0000 0.0000 c, g 0CE 1 0.0000 0.0000 c, f 0CE 1 0.0000 0.0000 c, g 0CE 1 0.0000 0.0000 c, f 0CE 1 0.0000 0.0000 0.0000 0.0000 c, f 0CE 1 0.0000 0.0000 0.0000 c, f 0CE 1 0.0000 0.0000 0.0000 0.0000 0.0000 c, f 0CE 1 0.0000 0		i dita	90	Rep	Reported values	(ng/L)	•
WRITH ATLANTIC OCEAN	Location	type		Average	Nax inus	Comments	Reference
### HATLANTIC CCEAN ### HATLANTIC CCEAN #### HATLANTIC CCEAN ####################################	USA, WORTH ATLANTIC OCEAN	300	-	0.0000	0.0000	6.0	JOHA76
WORTH ATLANTIC OCEAN COCE 1 0.0000 C, 1		90CE	_	0.0000	0.0000	, c	JONA76
WORTH ATLANTIC OCEAN	MORTH ATLANTIC	300E		0.0000	0.0000	, ,	JONA76
MORTH ATLANTIC OCEAN OCE	NORTH ATLANTIC	90E	-	0.0000	0.0000	C, f	JONA76
MORTH ATLANTIC OCEAN C. f 1 0.00000 0.00000 c., f 1 0.00000 0.000000 c., f 1 0.00000 0.00000 c., f 1 0.00000 0.00000 c., f 1 0.00000 0.00000 c., f 1 0.00000	NORTH ATLANTIC	OCE	-	0.0000	0.0000	6,0	JOHA76
MORTH ATLANTIC OCEAR NOCE 1 0.00000 C. f	NORTH ATLANTIC	90CE	,	0.0000	0.0000	<u>ج</u>	JONA 76
NORTH ATLANTIC OCEAN OCE 1 0.0000	MORTH ATLANTIC	OCE	_	0.0000	0.0000	, <u>,</u>	30MA76
MORTH ATLANTIC OCEAN OCE 1 0.00000 0.00000 c, 9	HORTH ATLANTIC	300	_	0.0000	0.0000	ĵ.	JONA76
MORTH ATLANTIC OCEAN WORTH ATLANTIC OCEAN WORTH ATLANTIC CEAN CALIFORNIA CALIFORNIA CALIFORNIA CALIFORNIA CALIFORNIA CALIFORNIA CALIFORNIA CET 1 0.00000 0.00000 c, i CALIFORNIA GW 22 0.00000 0.00000 c, j CET 1 0.00000 0.00000 c, i CALIFORNIA GW 22 0.00000 c, j CALIFORNIA GW 22 0.00000 c, j CALIFORNIA CET types: BRK = brackish; CAN = canal; CIS = cistern; RK = creek; DRN = drainage; fW = ground water; LAK = lake; Number of locations sampled: 65 Number of locations sampled: 65 Number of samples within detection limits Number of locations sampled: 65 Number of samples within detection limits Number of locations sampled: 65 Number of samples within detection limits Number of samples within detection limits Number of the highest reported values: 0.3 Highest of the reported values: 1.80000 Standard deviation of the natural logarithms: -2.34596 Standard deviation of the natural logarithms: 2.04373 Standard deviation of the natural logarithms: 2.04373 Location limit = 5.0 nob.	MORTH ATLANTIC	300	,-	0.0000	0.00000		30HA76
CALIFORNIA CALIFORNIA CALIFORNIA CALIFORNIA CALIFORNIA CALIFORNIA CALIFORNIA CALIFORNIA CALIFORNIA CE 1 0.00000 0.00000 C., j C. j CALIFORNIA CE Types: BRK = brackish; CAN = canal; CIS = cistern; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; LAK = lake; CR = creek; DRN = drainage; GM = ground water; CR = creek; DRN = drainage; GM = ground water; CR = creek; DRN = creek; LAK = lake; CR = creek; DRN = creek; LAK = lake; CR = creek; DRN = creek; LAK = lake; CR = creek; DRN = creek; LAK = lake; CR = creek; DRN = creek; LAK = lake; CR = creek; DRN = creek; LAK = lake; CR = creek; DRN = creek; LAK = lake; CR = creek; DRN = creek; LAK = lake; CR = creek; DRN = creek; LAK = lake; CR = creek; DRN = creek; CR = creek; DRN = creek; CR = creek	NORTH ATLANTIC	90E		0.0000	0.0000	. z	30MA76
ter types: BRK = brackish; CAN = canal; CIS = cistern; ter types: BRK = brackish; CAN = canal; CIS = cistern; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; LAK = lake; SK = creek; DRN = drainage; GW = ground water; SK = creek; DRN = drainage; GW = ground water; SK = creek; DRN = drainage; GW = ground water; SK = creek; DRN = drainage; GW = ground water; SK = creek; DRN = drainage; GW = ground water; SK = creek; DRN = drainage; GW = ground water; SK = creek; DRN = drainage; GW = ground water; SK = creek; DRN = drainage; GW = ground water; SK = creek; DRN = drainage; SK = c	NORTH ATLANTIC	330	-	0.0000	0.0000	. t	30HA76
BRK = brackish; CAN = canal; CIS = cistern; t; DRN = drainage; GW = ground water; LAK = lake; n; PAD = paddy; PND · pond; RES = reservoir; r; RNF = runoff; SF = surface water; TAP = tap water; e water. mit = <1 ng/L. mit = 1 ng/L. m. n. n.		19	22	0.0000	0.0000	r. 3	HADD82
<pre>t; DRN = drainage; GM = ground water; LAK = lake; n; PAD = paddy; PMD : pond; RES = reservoir; r; RMF = runoff; S^{V = surface water; TAP = tap water; e water. nit = < l ng/L. nit = 1 ng/L. n. n. n. n.}</pre>	l	l .		Statistic			
OCE = ocean; PAD = paddy; PND : pond; RES = reservoir; RIV = river; RNF = runoff; S ^F = surface water; TAP = tap water; WSI = waste water. Detection limit = <1 ng/L. Not detected. Detection limit = 1 ng/L. Uncertain. Depth of 0 m. Depth of 50 m. Depth of 50 m. Debth of 1000 m. Detection limit = 5.0 nob.	CRK - creek; DRN - drainage; GW = gr			Number o	f locations sa		
RIV = river; RMF = runoff; S ¹ = surface water; IAP = tap water; WSI = waste water. Detection limit = <l 0="" 1000="" 50="" 500="" debth="" depth="" detection="" l.="" limit="5.0" m.="" ng="" of="" pob.<="" td="" uncertain.=""><td>OCE = ocean; PAD = paddy; PMD : pond</td><td>i; RES = reservoir;</td><td></td><td>Number o</td><td>f samples with</td><td>In detection 1</td><td>imits: 9</td></l>	OCE = ocean; PAD = paddy; PMD : pond	i; RES = reservoir;		Number o	f samples with	In detection 1	imits: 9
Will " waste water. Wishest of the reported values: Detection limit = <1 ng/L. Net detected. Not detected. Net not the natural logarithms: Detection limit = 1 ng/L. Standard deviation of the natural logarithms: Depth of 0 m. Depth of 50 m. Depth of 50 m. Depth of 1000 m. Depth of 1000 m.				Mean of	the highest re	ported values:	0.37011
Detection limit = <1 mg/L. Not detected. Not detected. Not detected. Detection limit = 1 mg/L. Standard deviation of the natural logarithms: Uncertain. Depth of 0 m. Depth of 50 m. Standard deviation of the natural logarithms: 2.04373 Depth of 50 m. Depth of 1000 m. Detection limit = 5.0 mb.	WSI m waste water.			Highest	of the reporte		0000
Not detected. Not detected. Detection limit = 1 ng/L. Standard deviation of the natural logarithms: Uncertain. Depth of 0 m. Depth of 50 m. Standard deviation of the natural logarithms: 2.04373 Standard deviation of the natural logarithms: 2.04373 Depth of 50 m. Depth of 1000 m.				Standard		.60320	
Standard deviation of the natural logarithms: 2.04373				Hean of	the natural lo		34596
	<pre>d Detection limit = 1 ng/L.</pre>			Standard	deviation of)
	e Uncertain.			logari	thms: 2.04373		
9 Depth of 50 m. † pth of 500 m. Depth of 1000 m. Detection limit = 5.0 mb.	f Depth of 0 m.			•			
# pth of 500 m. Depth of 1000 m. Detection limit = 5.0 nmb.	9 Depth of 50 m.						
Depth of 1000 m. Detection limit = 5.0 mmb.	" oth of 500 m.						
J Detection limit = 5.0 mah.	Depth of 1000 m.						
	J Detection limit = 5.0 pmb.						

Table C-2. Monitoring data for bayluscide in water.

	Hater	8 0 04	Rep	Reported values (µg/L)	(1/6m)	•
Location	type	samples .	Average	Nax inum	Coments	Reference
KENYA, MAKURU MATIOMAL PARK, LAKE MAKURU RHODESIA, LAKE MCILMAIME	רעג		0.00000	0.00000	ه م	GRE 178A GRE 1788
Water types: BRK = brackish; CAN = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAX = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RIV = river; RNF = runoff; SM = surface water; TAP = tap water; WST = waste water.	istern; AK = lake; voir; P = tap water		Statistics: Number of lo Number of sa	Statistics: Number of locations sampled: 2 Number of samples within detect	Statistics: Number of locations sampled: 2 Number of samples within detection limits:	imits: 0

th Hot detected.

Table C-3. Monitoring data for benthiocarb in water.

	Kater	Ho, of	ze z	Reported values (µg/L)	(1/6rt)	
Location	type	samples .	Average	Max intum	Comments	Reference
JAPAN, KITAKYUSHU DISTRICT, EYE RIYER	RIV	٠.	00000	3.05000		719ZBS
JAPAN, KITAKYUSHU DISTRICT, ONGA RIVER	RIV	Ś	0.0000	10.0000		ZAZINZ
JAPAN, KITAKTUSHU DISTRICT, OUNA RIVER	RIV	5	0.0000	0.11000		Suzu77
JAPAN, KITAKYUSHU DISTRICT, MISHITANI RIVER	RIV	S	0.0000	2,37000		ZENZITS
JAPAN, KITAKYUSHU DISTRICT, HIGASHITANI RIVER	RIV	S	0.0000	2.23000		Cuzuz
JAPAN, KITAKYUSHU DISTRICT, CHIKUMA RIVER	RIV	S	0.0000	3.60000		Suzurr
JAPAN, KITAKYUSHU DISTRICT, MIKI RIVER	RIV	S	0.00000	0.0000	۵	2/INZINS
JAPAN, KITAKYUSHU DISTRICT, MURASAKI RIVER	RIV.	w	0.0000	3.28000		202077
* Water types: BRK = brackish; CAN = canal; CIS =	CIS = cistern:		Statistics	į,		
	water; LAK = lake;		Number of	Number of locations sampled: 8	unpled: 8	
	S = reservoir;		Number of	samples wit	Number of samples within detection limits: 7	inits: 7
runoff; SW = surface	water; TAP - tap water;		Mean of t	he highest r	Mean of the highest reported values: 3.52000	3.52000
MST = waste water. b Maximum value = <0 10 µg/L.			Highest Standard Mean of 1	Highest of the reported values: Standard deviation: 3.07923 Mean of the natural logarithms: Standard deviation of the natural		10.00000 0.76345

Table C-4. Monitoring data for total BHC (mixed isomers) in water.

				Reported values 6	h.c.(1)	
	Hater	No. of			7	
Location	type	samples	Average	Kaximun	Coments	Reference
+11000 - M6404 - 4014 - 5444	3					
ANIMECTICA, TOTAL TOTAL	ָּרְאָרָאָרְיִיּ בּייִייִייִייִייִייִייִייִייִייִייִייִייִ	_	c.000.5	0.0000	0	1 ABNO 3
	OCE.		0.00021	0.0000	م	TAMAB3
ANTARCTICA, KITAND-URA COVE	300		0.00057	0.0000	۵	TAMAB3
ANTARCTICA, MURUME LAKE	Cak	_	0.00033	0.0000	۵	TAMAB3
ANTARCTICA	300		0.00093	0.0000		TAMAB3
ANTARCTICA	300		0.00029	0.0000	v	TAMAB3
ANTARCTICA	OCE	_	0.00029	000000	U	TAMAB3
ANTARCTIC OCEAN	35		0.00030	0.0000		TAKA82
ANTARCTIC OCEAN	OCE.		0.00041	0.0000		TAMAB2
ANTARCTIC OCEAN	330	_	0.00093	0.0000		TANAB2
ANTARCTIC OCEAN	300		0.00062	0.0000		TAMA82
ANTARCTIC OCEAN	300		0.00029	0.0000		TAMAB2
ANTARCTIC OCEAN	300	_	0.00039	0.0000		TANAB2
ANTARCTIC OCEAN	330	-	0.00029	0.0000		TAMABS
ARABIAN SEA	336		0.00130	0.0000		TAMASO
ARABIAN SEA	300		0.00140	0.0000		TAKABO
ARABIAN SEA	300	_	0.00017	0.0000		TAMABO
BAY OF BENGAL	OCE	_	0.00190	0.0000		TANABO
	306	_	0.0010	0.0000		TAMABO
BAY OF BENGAL	300 6	,	99000.0	0.0000		TANABO
	330		0.00420	0.0000		TAMBO
RERING SEA	30		0.00380	0.0000		TANASO
	300	_	0.00446	0.0000		TAMABO
BERING SEA	306 0CE	_	0.00430	0.0000		TANABO
BERING SEA	300	-	0.00350	0.0000		TAMBO
BERING SEA	906	_	0.00400	0.0000		TAMABG
RENING STA	300 6	-	0.00320	0.0000		TAMABO
EAST CHINA SEA	300	_	0.00130	0.0000		TAMABO

Table C-4. (Continued)

				Reported values (119/1)	J(1)	
	Water	No. of				
Location	type	s subjes	Average	Naximum	Coments	Reference
COSTU PUTAR CEA	100					
Colta cata era	֓֞֝֟֝֟֝֟֝֟ ֓֞		36.50	0.0000		TALKSC
SUGIN CHIMA SEA	30		0.30340	0.0000		TANABO
· INDOCHINA, SOUTH CHINA SEA	OCE		0,00700	0.0000		TAMB2
SOUTH CHIMA SEA	9CE		0.00730	0.0000		TAMAR2
CORAL SEA	OCE		0.00120	0.0000		TANA82
CORAL SEA	OCE	-	0.00090	0.0000		TAMASZ
CORAL SEA	OCE.	,	0.00041	0.0000		TAKA62
INDONESIA, JAVA SEA	OCE 0		0.00550	0.0000		ZANAS2
INDIA, SATHIAR RESERVOIR	RES	2	0.00820	0.00850		KAME79
INDIA, SATHIAR RESERVOIR	RES	12	0.0000	0.0100		K A MR 70
INDIA, SATHIAR RESERVOIR	RES		0.00950	00000-0		KAMET Q
INDIA, MYSURE DISTRICT	7	£13	0.000	2360 00000		2 the 2
INDIAM CCEAM, JAYA TRENCH	OCE.	· -	0.00310	0.0000		TAMABO
INDIAN OCEAN, S. OF INDONESIA	OCE.	_	0.00360	0.0000		TAKAR?
	OCE.	,-	0.00170	0.0000		TAWA?
INDIAN OCEAN, OFF M. AUSTRALIA	9CE	,	0.00100	0.0000		TANARO
INDIAN OCEAN, S. OF AUSTRALIA	OCE		0.00027	0.0000		TAWA82
JAPAN, KITAKYUSHU DISTRICT, TONDA RESERVOIR	35	9	0.0000	0.50000		YAMMADR
JAPAN, KIYAKYUSHU DISTRICT, ONGA RIYER	RIV	10	0.0200	0.65000		YAMBOS
JAPAN, RYUKU RETTO, N. PACIFIC CCEAN	OCE	_	0.00330	0.0000		TAMASZ
JAPAN, MAMPO, SHOTO/12U TRENCH, N. FACIFIC OCEAN	OCE	 -	0.00120	0.00000		TAKA82
	OCE		0.00099	0.0000		TAMAS2
KENYA, MZOJA RIVER CATCHIENT	RIV	=	0.0000	0.0000	•	KALL77
	RIV	13	0.0000	0.0000	•	KALL77
KENTA, LAKE MAKIRU	LAK	79	0.0000	0.0000	4-	KALL77
KENTA, LAKE ELEMENTELTA	¥	70	0.0000	0.0000	4 -	KAL177
KEMYA, LAKE MATYASHA	LAK	v	0.0000	0.0000	4 -	KALL77
RENTA, PALEMA RIVER	RIV	7	0.0000	0.0000	4-	KAL177
AERTA, GILGIL RIVER	RIV	7	00000°C	00000*0	•	KALL77

Table C-4. (Continued)

	10 40 5	4	Repor	Reported values (µg/L)	6/۲)	
Location	type	samples .	Average	Haximum	Coments	Reference
PACIFIC OCEAM, MELANESIA	300	-	. 0.0077	0.0000		TAWA\$2
N. PACIFIC OCEAN, EAST CAROLINE BASIN	300	_	0.00052	0.00000		TANASZ
N. PACIFIC CCEAN, MARIANA TRENCH	OCE	-	0.00053	0.0000		TANAB2
N. PACIFIC OCEAN, AGRIHAN ISLAND	300	_	0.0010	0.0000		TAMASZ
M. PACIFIC OCEAN	OCE	_	0.00052	00000.0		TAMA82
MORTHMEST PACIFIC OCEAN	300		0.01130	0.0000		TAMABO
NORTHMEST PACIFIC OCEAN	300	_	0.02260	0.0000		TANABO
NORTHMEST PACIFIC OCEAN	300		0.01240	0.0000		TANABO
	300	_	0.00490	0.0000		TANABO
NORTHMEST PACIFIC OCEAN	OĆE	-	0.00830	0.0000		TAMABO
NORTHMEST PACIFIC OCEAN	300		0.00830	0.0000		TAMABO
NORTHMEST PACIFIC OCEAN	300		0.00810	0.0000		TANABO
MORTHMEST PACIFIC OCEAN	300		0.00850	0.0000		TAKABO
NORTHMEST PACIFIC OCEAN	OCE	-	0.00130	0.0000		TANABO
MORTHHEST PACIFIC OCEAN	OCE.		0.00100	0.0000		TANABO
NORTHMEST PACIFIC OCEAN	300		0.00140	0.0000		TANABO
NORTHWEST PACIFIC OCEAN	OCE.	_	0.00140	0.0000		TAMABO
NORTHMEST PACIFIC OCEAN	300	_	0.00100	0.0000		TANABO
MORTHMEST PACIFIC OCEAN	330	_	0.00085	0.0000		TAMBO
NORTHMEST PACIFIC OCEAN	300	_	0.00380	0.0000		TAKABO
MORTHMEST PACIFIC OCEAN	300	,-	0.00370	0.0000		TAMABO
NORTHMEST PACIFIC OCEAN	300	_	0.00550	0.0000		TANABO
PACIFIC OCEAN	OCE.	-	0.01050	0.0000		TAMABO
NORTHWEST PACIFIC OCEAN	330	,	0.01420	0.0000		TAMABO
	90E	,	0.00620	0.0000		TANABO
NORTHWEST PACIFIC OCEAN	330	_	0.00630	0.0000		TAWA80
MORTHWEST PACIFIC OCEAN	OCE.	_	0.00820	0.0000		TANABG
TASMAN SEA	330	_	0.00032	0.0000		TAMARO

Table C-4. (Continued)

	Vater	1		Ret	Reported values (µg/L)	1 / 61	
Location	type	samples	14	Average	Raximum	Coments	Reference
USA, ALABAWA, HARTSELLE, FLINT CREEK USA, CALIFORNIA	CRK	13	00	0.00700	1.00400	9, h	#1CH64 MADO82
Water types: BRK = brackish; CAN = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RiV = river; RNF = runoff; SW = surface water; TAP = tap wal WST = waste water. Under ice. Outer margin of pack ice. Uncertain. Average detected = <0.19 ppb. Average detected = <0.04 ppb. Average detected. Not detected. Detection limit = 5.0 ppb.	CIS = cistern; water; LAK = lake; S = reservoir; water; TAP = tap water;	lter:		Stati Numbe Mumbe Mean Stand Stand Jog	Statistics: Number of locations sampled: 87 Humber of samples within detection Mean of the highest reported value Highest of the reported values: Standard deviation: 265.51729 Mean of the natural logarithms: Standard deviation of the natural logarithms: 2.27241	Statistics: Number of locations sampled: 87 Humber of samples within detection limits: 79 Hean of the highest reported values: 29.90407 Highest of the reported values: 2360.00000 Standard deviation: 265.51729 Mean of the natural logarithms: -5.89828 Standard deviation of the natural	1imits: 79 : 29.90407 60.00000

Table C-5. Monitoring data for alpha-BHC in water.

Location	Water	No. of			3	
	type	samples	Average	Nex iman	Coments	Reference
ANTARCTIC OCEAN	OCE	-	0.0007	0.0000		TANA82
ANTARCTIC OCEAN	OCE.	-	0.0000	0.0000		TANARO
ANTARCTIC OCEAN	OCE	-	0.0000	0.0000		TAMAS
ANTARCTIC OCEAN	300	_	0.00010	0.0000		TAKA82
ANTARCTIC OCEAN	90CE	-	0.00007	0.0000		TAMAB2
ANTARCTIC OCEAN	330	_	0.0000	0.0000		TANARZ
ANTARCTIC OCEAN	900		0.0000	0.0000		TAMAB2
ARGENTINA, PARANA RIYER, 600 KM ABOVE THE MOUTH	RIV	7	0.0000	0.03300		L ENASA
ARGENTINA, SALADO RIVER	NIX.	•	0.00800	0.0000		LEW84
ARGENTIMA, PAZQUE GENERAL, BELGRAND LAKE	Ľĸ	7	0.01000	0.0000		L.ENA84
ARGENTINA, SETUBAL LAKE	(AK	=	0.01100	0.0000		LENA84
BELGIUM, EYSOEM, RIVER MEUSE	RIY	۵	0.0000	0.01000		WEGW78
INDOCHINA, SOUTH CHINA SEA	300		0.00290	0.0000		TAMA82
SOUTH CHINA SEA	300		0.00340	0.0000		TANAB2
CORAL SEA	330	_	0.00027	0.0000		TAHA82
CORAL SEA	300	-	0.00016	0.0000		TAWA82
CORAL SEA	30	~	0.00015	0.0000		TAMAB2
EGYPT, MAMOUDIEH CAMAL	BS	-	0.39000	0.0000		EL SE 79
EGYPT, EL-SOYOUF MATER TREATHERT PLANT	AS.	_	0.0000	0.0000	v	EL SE 79
EGYPT, MAHOUDIEN	TAP	,	0.10000	0.0000		EL SE 79
EGYPT, ABEES	WST	-	0.19000	0.0000		EL SE 79
FRANCE, MEDITERANNEAN SEA, 10 MI. FROM COAST	OCE	53	0.00500	0.04400		ME ST83

Table C-5. (Continued)

- Bration						
	type	samples.	Average	Hax imum	Comments	Reference
FRANCE, MEDITERANNEAN SEA, LITTORAL PONDS	PND	. 83	0.00820	0.03000		MES183
FED. REPUBLIC OF GERMANY, HANBURG, ELBE RIVER	RIV	s	0.0000	1.50000		HER772
REPUBLIC OF	RIV		0.0000	0.0000	U	HER272
FED. REPUBLIC OF GERMANY, BREMEN, MESER RIVER	RIV	&	0.0000	0.0000	u	HER772
REPUBLIC OF	RIV	_	0.02500	0.0000	•	HER 272
REPUBLIC OF	RIV	→	0.12500	0.90500		HER272
REPUBLIC OF	RIV	∞	0.15500	2.40000		HER272
REPUBLIC	RIV		0.11500	0.0000		HER272
REPUBLIC OF	RIV	~	0.11000	0.0000		HER272
REPUBLIC OF	RIV	-	0.55000	0.0000		HER272
REPUBLIC OF	RIV	ဆ	0.0000	0.05000		HER272
REPUBLIC OF GERMANY,	RIV	_	0.0000	0.0000	U	HER272
REPUBLIC OF GERMANY, INGOLSTADY, DANUB	RIV		0.04000	0.0000		HER272
REPUBLIC OF GERMANY.	RIV	_	0.02000	0.0000		HER272
REPUBLIC OF GERMANY.	RIV		0.0000	0.0000	U	HER272
KEPUBLIC OF	RIV	_	0.0000	0.0000	U	HER272
REPUBLIC OF GERMANY.	RIV		0.0000	0.0000	υ	HER272
REPUBLIC OF GERMANY,	RIV	-	0.0000	0.0000	U	HER 272
REPUBLIC OF	RIV	-	0.29500	0,00000		HER272
REPUBLIC OF	RIV	-	0.0000	0.0000	U	HER272
REPUBLIC OF GERMANY, KOBLENZ, MOSELLE	RIV	-	0.02500	0.0000		HER 272
TED. REPUBLIC OF GERMANY, RAIMMEIN, MAIN RIVER	RIV		0.17000	0.0000		HER272
REPUBLIC OF	RIV	_	0.00500	0.0000		HER 272
red. Republic of Germany, Heidelberg, Neckar River	RIV	-	0.0000	0.0000	U	HER272

Table C-5. (Continued)

·	Vater	go, of	Rep	Reported values (119/L)	(1/6m)	
Location	type	samples.	Average	Haximum	Comments	Reference
FED. REPUBLIC OF GERMANY, LANGENARGEN, LAKE CONSTANCE	Į ×	-	0.04000	00000		HER272
	RIV	_	0.17000	0.0000		HER272
FED. REPUBLIC OF GERMANY, HOF, SAALE RIVER	RIV	_	0.09500	0.0000		HER 272
FED. REPUBLIC OF GERMANY, BENLIN-GATON, HAVEL RIVER	RIV	60	0.0000	0.19000		HER 272
F.R.G., BERLIN-LICHTERFELDE, TELTORKANAL	RIY	∞	0.13500	1.70000		HER272
GERMANY, BELLINGEN, RHIME RIVER	RIV	۵	2.10000	0.0000		WEGM78
GERMANY, ARTZEMFIM, RHINE RIVER	RIV	۵	2.70000	0.0000		MEGMO 8
GERMANY/FRANCE, STRASBOURG, RHIME RIVER	RIV	۵	0.15000	0.0000		WEGM78
GERMANY, KARLSRUNE, RHINE RIVER	RIV	۵	1.10000	0.0000		WEGN78
GERMANY, LUDNIGSNAFEN, RHINE RIVER	RIV		0.86000	0.0000		WEGM78
GERMANY, MAINZ, RHIME RIVER	RIV	۵	0.60000	0.0000		WEGNU 8
GERMANY, LEVERKUSEN, RHINE RIVER	RIV	م	0.33000	0.0000		WEGH78
GERMANY, DUISBURG, PHINE RIVER	RIV	۵	0.27000	0.0000		NEGNO 8
INCOMESIA, JEPARA	BRK	2	0.12000	0.14000		PURN77
INDOMESIA, JAKARTA, SAMRAMG, SURABAYA	RIV	zo.	0.31000	0.50000		PURN77
INDONESIA, JAVA SEA	30	_	0.00130	0.0000		TANA82
INDIA, MYSORE DISTRICT	م	13	0.0000	830,00000		RAJU82
INDIAN OCEAN, JAYA TRENCH	OCE	-	0.00048	0.0000		TANA82
INDIAN OCEAN, S. OF INDONESIA	9CE		95000.0	0.0000		TAMAB2
INDIAN OCEAN	36	-	0.00012	0.0000		TANA82
INDIAN OCEAN, OFF W. AUSTRALIA	OCE		0.00002	0.0000		TANA82
INDIAN OCEAN, S. OF AUSTRALIA	9CE	_	0.0n003	0.0000		TANA82
IRELAND, LOUGH VEIGH	RIV	۵	0.00300	0.0000		HARP80
NORTHERN IRELAND, LOUGH NERIGH, BLACKWATER RIVER	RIV	೫	0.00900	0.0000		HARP77

Table C-5. (Continued)

***	Vater	Ko.	&	Reported values (µg/L)	(1/6rb)	
Location	typea	samples.	Average	Hax inum	Comments	Reference
ISRAEL, CONSTAL AQUIFER	A9		0.0000	0.0000	U	LAHA74
I SRASL, COASTAL AQUIFER	75	_	0.0000	0.0000	U	LAHA74
ISRAEL, COASTAL AQUIFER	7.9	_	0.0000	0.0000	· u	LAHA74
ISPAEL, COASTAL AQUIFER	#9		0.0000	0.0000	U	LAHA74
ISRAEL, COASTAL AQUIFER	79	m	0.0000	0.0000	U	LAHA74
I SRAEL, CGASTAL AQUIFER	7. 9		000000	0.0000	U	LAHA74
I SRAEL, COASTAL AQUIFER	79		0.00410	0.0000		LAHA74
ITALY, PO RIVER	RIV	81	0.00300	0.03700	7	GAL AB 1
ITALY, ADIGE RIVER	RIV	18	0.00100	0.02400	7	GALAB 1
ITALY, COASTAL ARCH M. OF TARANTO, TARA RIVER BASIN	- JS	S	0.02000	1.00000		POLE83
JAPAN, KITAKYUSHU DISTRICT, HIGASHITANI RIVER	RIV	-	0.42000	0.0000		SUZU74
JAPAN, KITAKYUSHU DISTRICT, ONGA RIYER	RIV	-	0.50000	0.0000		SUZU74
JAPAN, KITAKYUSHU DISTRICT, OMGA RIVER	RES	_	0.05000	0.0000		SUZUZA
Japan, Hino, Tamgana Riyer	RIV	7	0.00500	0.38800		OCH176
JAPAN, TAMGAWA RIYER, WORBORITO	RIV	7	0.01600	0.48700		OCH176
JAPAN, MARIKO, TAMGANA RIVER	RIY	7	0.01400	0.57700		OCH176
JAPAN, RYUKU, RETTO, N. PACIFIC OCEAN	90E		0.00180	0.0000		TANA82
JAPAN, MAMPO SHOTO/120 TRENCH, N. PACIFIC OCEAN	90 00 10 10 10 10 10 10 10 10 10 10 10 10	_	0.00064	0.0000		TANA82
JAPAN, NAMPO SHOTO, N. PACIFIC OCEAN	320	_	0.00071	0.0000		TAKA82
METHERLANDS/GERMANY, LOBITH, RHINE RIVER	RIV	م	0.24000	0.0000		WEGM78
METHERLANDS, ROTTERDAM, RHINE RIVER	RIV	م	0.23000	00000-0		WEGN78
METHERLANDS/GERMANY, LOBITH, RHIME RIVER	RIV	م	0.02000	0.22000		WEGH78

Table C-5. (Continued)

· · ·	Water	No. of		reported terms and the	(1/6m	
Location	type	samples.	Average	Max fraum	Comments	Reference
MORTHERN IRELAND, LOUGH MERICH, MAIN RIVED	219	9	00010	0000		110011
NORTHERN 1951 AND 1 CREA MEDICAL MOYOR & DIVED		3 5	90300	000000		I JANE
MENICH, POINCE AIVE	¥14	₹	20000	0.0000		HARP77
MINIMENA INFERMED, LOUGH NERIGH, SIX MILE MATER	RIV	2	0.02600	0.0000		HARP 77
NORTHERN IRELAND, LOUGH NERIGH, UPPER BAIN RIVER	RIV	8	0.01100	0.0000		HARP77
MORTHERN TRELAND, LOUGH NERIGH, BALLINDERRY RIVER	RIV	8	0.00600	0.0000		HARP77
ISRAEL, LAKE KINNERET	LAK	21	90000.0	0.02260	75	HARP 74
ISRAEL, LAKE KIMMERET HATERSHED, DAN RIVER AT FOUNT	RIV	-	0.0000	0.0000	ر. د	KAHA74
ISRAEL, JORDAN RIVER	RIV	9	0.00070	0.00240	' ס	KAHA74
SRAEL, NESHUSHIM RIVER	RIV	~	090000	0.0000	70	KAHA74
SRAEL, LAKE KINNERET NATERSHED	DRM	m	0.0000	0.00060	7	KAHA74
ISRAEL, JORDAN RIVER (LONER)	RIV	~	0.02360	0.0000	70	KAHA74
SRAEL, YASUOR RESERVOIR	RES		0.0030	0.0000	7	KAHA74
I SRAEL, BEL-HOTAFA RESERVOIR	RES		0.00470	0.0000	ъ	KAHA74
SRAEL, KISHON RESERVOIR	RES	_	0.00100	0.0000	7	KAHA74
SRAEL, KISHON RESERVOIR, NORTH	RES		0.00180	0.0000	•	KAHA74
ISRAEL, KISHON RESERVOIR, SOUTH	RES	٣	0.00350	0.04200	70	KAHA74
I SKAEL, GEVAT RESERVOIR	RES	m	0.00360	0.00920	-0	KAHA74
SRAEL, GEVAT RESERVOIR (ENTRANCE)	RES	•	0.00130	0.00240	70	KAHA74
I SRAEL, ZOHAR RESERVOIR	RES	_	0.00430	0.0000	75	KAHA74
SRAEL, COASTAL AGUIFER	A5	,	0.0000	0.0000	U	LAHA74
SRAEL, COASTAL AQUIFER	N9	_	0.0000	0.0000	U	LAHA74
I SKAEL, COASTAL AQUIFER	M9	_	0.0000	0.0000	U	LAHA74
ISRAEL, COASTAL AQUIFER	N9	9	0.0000	0.0000	U	LAHA74
I SRAEL, COASTAL AQUIFER	ٷ	-	0.0000	0.0000	U	I AHA74

Table C-5. (Continued)

•	i e	,	Rep	Reported values (µg/L)	(1/6m)	
Location	type	samples	Average	Nex inum	Coments	Reference
HORMAY, STRYKEN, RIVER MITELYA	718		O SCOOL	00000		County
NORWAY, KJELLERHOLEM, RIVER NITELVA	218	<u>م</u>	1.20000	0.0000		CHOR!
MORHAY, SAGDALVELVA, RIVER NITELVA	RIV	۵	0.60000	0.0000		SCHOR 1
NORWAY, LEIRALVELVA, RIVER MITELVA	RIV	٩	000001	0.0000		SCHOB
NORHAY, LILLESTROMA, LAKE OVEREN	LAK	٩	2.90000	0.0000		SCH08.1
PACIFIC OCEAN, MELANESIA	300	-	0.00026	0.0000		TANA82
N. PACIFIC OCEAN, EAST CAROLINE BASIN	330	-	0.00022	0.0000		TAMAB2
M. PACIFIC OCEAN, MARIANA TRENCH	300	-	0.00024	0.0000		TANAB2
M. PACIFIC OCEAN, AGRIHAN ISLAND	OCE	-	0.00032	0.0000		TAKAB2
M. PACIFIC OCEAN	300	_	0.00033	0.0000		TAMA82
SHITZERLAND, RHEINFELDEN, RHINE RIVER	RIV	م	0.0200	0.0000		WEGPU8
SMITZERLAND, BASEL, RHINE RIVER	RIV	م	1.20000	0.0000		MEGM78
TASMAN SEA	300	_	0.00012	0.0000		TANA82

Mater types: BRK = brackish; CAN = canal; CIS = cistern;
CRK = creek; DRN = drainage; GW = ground water; LAK = lake;
OCE = ocean; PAD = paddy; PND = pond; RES = reservoir;
RIV = river; RNF = runoff; SW = surface water; TAP = tap water;

WST = waste water. b Uncertain.

^c Not detected.

d Detection limit = 1 ng/L.

Number of locations sampled: 129
Number of samples within detection limits: 107
Hean of the highest reported values: 8.03823
Highest of the reported values: 830.00000
Standard deviation: 80.21368
Hean of the natural logarithms: -4.00432

Statistics:

Standard deviation of the natural logarithms: 3.37547

Table C-6. Monitoring data for beta-BHC in water.

· ·	Vater	Ko, of	Repor	Reported values (119/L)	19/1)	
Location	type	samples .	Average	Nax faun	Comments	Reference
ANTARCTIC OCEAN	OCE	-	90000*0	0.0000		TAW82
ANYARCTIC OCEAN	OCE	_	0.00003	0.0000		TAWARZ
ANTARCTIC OCEAN	OCE	_	0.00004	0.0000		TAMAB2
ANTARCTIC OCEAN	OCE		0.00003	0.0000		TANA82
ANTARCTIC OCEAN	OCE		0.00001	0.0000		TAMAB2
ANTARCTIC OCEAN	300 300	,	0.00002	0.0000		TAKAB2
ANTARCTIC OCEAN	30	-	0.00001	0.0000		TAMA82
INDOCHINA, SOUTH CHINA SEA	90CE	-	0.00080	0.0000		TAIMB2
SOUTH CHINA SEA	300	*****	0.00100	0.0000		TAMA82
CORAL SEA	3CE	_	0.0001	0.0000		TANKBZ
CORAL SEA	OCE	_	0.00002	0.0000		TAMA82
CORAL SEA	300		0.00002	000000		TAKA82
GERMANY, BELLINGEN, RHINE RIVER	RIV	۵	0.22000	0.0000		NEGNO8
GERMANY, ARTZENHEIM, RHIME RIVER	RIV	م	0.30000	0.0000		WEGM78
GERMANY/FRANCE, STRASBOURG, RHINE RIVER	RIV	۵	0.0900	0.0000		NEGN78
GERMANY, KARLSRUHE, RHINE RIVER	RIV	۵	0.13000	0,0000		WEGN78
GERMANY, LUDMIGSHAFEN, RHINE RIVER	RIV	م	0.1000	0.0000		WEGIV8
GERMANY, MAINZ, RHINE RIVER	RIV	م	0.08000	0.0000		WEGN78
GERMANY, LEVERKUSEN, RHINE RIVER	RIV	۵	0.05000	0.0000		NEGA78
GERMANY, DUISBURG, RHINE RIVER	RIV	م	0.03000	0.0000		WEGH78
INDOMESIA, JAVA SEA	300		0.00054	0.0000		TAM82
INDIA, MYSORE DISTRICT	م	13	0.0000	830,00000		RAJU82
INDIAN OCEAN, JAVA TRENCH	300		0.00014	0.0000		TAMA82
INDIAN OCEAN, S. OF INDONESIA	OCE	_	0.00016	0.0000		TANA82

Table C-6. (Continued)

	Water	No. of	ret ret	veported values 山東上		
Location	t ype ^a	samples ~	Average	Hax faum	Comments	Reference
INDIAN OCEAN	OCE.	-	0.00011	O O		TAKAR?
INDIAN GCEAN, OFF W. AUSTRALIA	OCE.		0.0000	00000		TAMAGO
INDIAN OCEAN, S. OF AUSTRALIA	OCE		0.0004	0.0000		TAMAR?
ITALY, COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN	NS	s	0.0000	0.03000		POLF83
JAPAN, KITAKYUSHU DISTRICT, TONDA RESERVOIR	RS.	01	0.02000	0.20000		YAMBOB
JAPAN, KITAKYUSHU DISTRICT, OMGA RIYER	RIV	20	0.01000	0.2000		YAMAROR
JAPAN, KITAKYUSHU DISTRICT, HIGASHITANI RIVER	RIV	طامتو	0.05000	0.0000		Suzu74
JAPAN, KITAKYUSHU DISTRICT, ONGA RIYER	RIV		0.04000	0.0000		\$1171174
JAPAN, KITAKYUSHU DISTRICT, ONGA RIVER	RES		0.04000	0.0000		\$4207¢
JAPAN, RYUKU RETTO, N. PACIFIC OCEAN	OCE.	pud	0.00011	0.0000		TANAR?
JAPAN, NAMPO SHOTO/IZU TRENCH, N. PACIFIC OCEAN	OCE	_	0.00030	0.0000		TANA82
JAPAN, MAMPO SHOTO, M. PACIFIC OCEAN	9CE	_	0.00017	0.0000		TAKAR
MALAYSIA, KRIAN DIST, PERAK STATE, TANJONG PIANDANG	PAO	m	0.9000	0.0000		PE IE83
MALAYSIA, KRIAN DIST, PERAK STATE, SUNGEI KOTA FIELD	PAD	m	0.10000	0.0000		METER3
MALAYSIA, KRIAN DIST, PERAK STATE, JALAN BHARU SUMP	PNO	٣	0.10000	0.0000		METE83
ALAYSIA, KRIAM DIST, PERAK, PARIT TANJONG PIANDANG	CAN	m	0.20000	0.0000		ME1ER3
MALAYSIA, KRIAN DIST, PERAK STATE, SUNGEI BURONG	CAN	m	0.30000	0.0000		FE IE 83
ME HERLANDS/GERMANY, LOBITH, RHINE RIVER	RIV	۵	0.05000	0.0000		WEGW78
NETHERLANDS, ROTTERDAM, RHINE RIVER	RIV	م	0.0000	0.0000	U	NEGN78
PALIFIC UCEAN, MELANESIA	OCE	_	90000.0	0.0000		TAMA82
M. PACIFIC OCEAN, EAST CAROLINE BASIN	9CE	-	0.00003	0.0000		TAMA82
n. FALIFIC UKEAN, MAKIANA IRENCH	9CE	_	0.00008	0.0000		TANAB2

Table C-6. (Continued)

	1	4	Rep	Reported values (如幼儿)	(ካራሱ)	
Location	type	samples	Average	Naximum	Coments	Reference
N. PACIFIC OCEAN, AGRIHAN ISLAND	300		0.00015	0.0000.0		TAMA82
N. PACIFIC OCEAN	300	_	0.00003	0.0000		TANAR?
SMITZERLAND, RHEINFELDEN, RHINE RIVER	RIV	م	0.02000	0.0000		WEGIV8
SHITZERLAND, BASEL, RHINE RIVER	RIV	۵	0.15000	0.0000		WEG978
TASMAN SEA	0 CE	~	0.00001	0.00000		TANA82
Water types: BRK = brackish; CAN = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RIV = river; RNF = runoff; SW = surface water; TAP = tap water; WST = waste water. b Uncertain. c Not detected.	ern; - lake; ir; ' - tap water;		Statistics: Number of 1 Number of 5 Nean of the Highest of Standard de Nean of the Standard de	Statistics: Number of locations sampled: 51 Number of samples within detection Mean of the highest reported values: Standard deviation: 117.37005 Nean of the natural logarithms: Standard deviation of the natural logarithms:	Statistics: Number of locations sampled: 51 Number of samples within detection limits: 50 Mean of the highest reported values: 16.66768 Highest of the reported values: 830.00000 Standard deviation: 117.37005 Mean of the natural logarithms: -6.10491 Standard deviation of the natural	on limits: 50 4es: 16.66768 830.00000

Table C-7. Monitoring data for gamma-BHC (Lindane) in water.

	Water	No. of	Nepol I	neporteo values (µg/L)		
Location	type	semples	Average	Maximum	Comments	Reference
ANTARCTIC OCEAN	96	-	0.0067	0.0000		TAMAR
ANTARCTIC OCEAN	900	-	0.00035	00000		TAMAGO
ANTARCTIC OCEAN	של ני בי		0.000	00000		TABABS
ANTARCTIC OCEAN	900		0.00049	0.0000		TAMARZ
ANTARCTIC OCEAN	OCE.	-م	0.00021	0.0000		TAIM82
ANTARCTIC OCEAN	OCE	_	0.00030	0.0000		TANAB2
ANTARCTIC OCEAN	90CE	_	0.00020	0.0000		TAKA82
ARGENTINA, PARANA RIVER, 600 KM ABOVE THE MOUTH	RIV	*	0.0000	0.02500	۵	LENA84
ARGEHTIMA, SALADO RIVER	RIV	9	0.05800	0.0000		LENA84
ARGENTINA, PARQUE GENERAL, BELGRANO LAKE	LAK	14	0.00800	0.0000		LENA84
ARGENTINA, SETUBAL LAKE	LAK	=	0.00800	0.0000		LENABA
BELGIUM, EYSDEN, RIVER NEUSE	RIV	U	0.01000	0.03000		WEGW78
INDOCHINA, SOUTH CHINA SEA	90E		0.00330	0.0000		TANA82
SOUTH CHIMA SEA	300		0.00290	0.0000		TANAR?
	300	_	0.00094	0.0000		TAW82
CORAL SEA	300		0.00072	0.0000		TANA82
CORAL SEA	9CE	_	0.00024	0.0000		TAW82
EGYPT, EL-SALAAM	₩	_	1.08000	0.0000		EL 2A83
EGYPT, EL-SALAAM	B	~~	0.0000	0.0000	•	EL ZAB3
EGYPT, EL-SALAAM	Z	_	0.0000	0.0000	70	EL 2A83
EGYPT, EL-SALAAM	M9	_	0.0000	0.0000	70	E1,2A83
EGYPT, EL-SALAKN	RS	-	0.0000	0.0000	70	EL 2A83
EGYPT, EL-SALAAN	PS.		1.10000	0.0000		EL 2A83
EGYPT, EL-SALAAM	P.	,-	0.02000	0.0000		EL 2A83
EGYPT, EL-SALAAM	M9	-	0.25000	0.00000		EL 2A83
EGYPT, EL-SALAAM	5	•	00000			

Table C-7. (Continued)

			Report	Reported values (MQ/L)	<u>_</u>	
Location	Water type ⁸	No. of samples	Average	Naximus	Comments	Reference
EGYPT, EL-SALAAM	75	~~	0,0000	0.0000	9	EL 2A83
EGYPT, EL-SALAAM	79		0.0000	0.0000	70	E1. ZA83
EGYPT, EL-SALAAN	7.9	_	1.08000	0.0000		E1.ZA83
EGYPT, EL-SALAM	7.5	_	1.17000	0,0000		E1.2A83
EGYPT, LAKE MARIUT	ž	12	2.09000	0.0000		SAADB2
EGYPT, MANNOUDIEN CANAL	3	_	0.34000	0.0000		ELSE79
EGYPT, EL-SOYOUF WATER TREATMENT PLANT	S	,	0.19000	0.0000		ELSE79
EGYPT, MAHMOUDIEH	TAP	_	0.29000	0.0000		ELSE79
EGYPT, ABEES	HST.	_	0.63000	0.0000		EL SE 79
FRANCE, MEDITERRANEAN SEA, 10 MI. FROM COAST	900	55	0.01000	0.29500		ME ST83
FRANCE, MEDITERRANEAN SEA, LITTORAL PONDS	S.	96	0.00880	0.02900		PEST83
Ξ	RIV	12	0.12500	0.43000		HER272
FED. REPUBLIC OF GERMANY, LAUENBURG, ELBE RIVER	RIV	_	0.14500	0.0000		HER272
FED. REPUBLIC OF GERMANY, BREMEN, WESER RIVER	RIV	15	0.00500	0.06000		HER272
REPUBLIC OF	RIV	-	0.04500	0.0000		HER272
FED. REPUBLIC OF GERMANY, DUSSELDONF, RHINE RIVER	RIV	=	0.10500	0.24500		HER272
FED. REPUBLIC OF GERMANY, KARLSRUME, RHINE RIVER	RIV	15	0.05000	0.53500		HER272
FED. REPUBLIC OF GERMANY, WESEL, RHINE RIVER	8 <u>1</u> 8	_	0.15500	0.0000		HER272
REPUBLIC OF	RIV		0.26000	0.0000		HER272
FED. REPUBLIC OF GERMANY, OESTRICH, RHINE RIVER	RIV	_	0.13000	0.0000		HER272
6	RIV	15	0.00500	0.04500		HER272
FED. REPUBLIC OF GERMANY, ULM, DANUBE RIVER	RIV	_	0.02500	0.0000		HER272
FED. REPUBLIC OF GERMANY, INGOLSTADT, DANUBE RIVER	RIV	_	0.03000	0.0000		HER272
FED. REPUBLIC OF GERMANY, GEISINGEN, DANUBE RIVER	RIV	_	0.04000	0.0000		HER272
FED. REPUBLIC OF GERMANY, RENDSBURG, MORDOSTSEEKANAL	RIV	_	000000	0.0000	70	HER272
REPUBLIC OF	RIV	_	0.01500	0.00000		HER272
FED. REPUBLIC OF GERMANY, RHEINE, EMS RIVER	RIV	_	0.0000	0.00000	7	HER 272

Table C-7. (Continued)

S Average Hax incm Comments 0.00000 0.00000 0.00000 d 0.00000 0.00000 0.00000 d 0.02000 0.00000 0.00000 d 0.03000 0.00000 0.00000 d 0.05500 0.00000 0.00000 d 0.05500 0.00000 0.00000 d 0.05500 0.00000 0.00000 d 0.05000 0.00000 0.00000 d 0.42000 0.00000 0.00000 d 0.12000 0.00000 0.00000 d 0.12000 0.00000 0.00000 d 0.00000 0.00000 0.00000 d 0.00000 0.00000 0.00000 d 0.00000 0.00000 0.00000 d	•	Water	No. of	Report	Reported values (µg/l)	2	
REPUBLIC OF GERWANT, DUISBURG, RURR BIVER RIY 1 0.00000 0.00000 REPUBLIC OF GERWANT, SIEGBURG, SIEG RIVER RIY 1 0.00000 0.00000 0.00000 REPUBLIC OF GERWANT, SIEGBURG, SIEGRARIE RIVER RIY 1 0.05000 0.00000 0.00000 REPUBLIC OF GERWANT, RAIDELBERG, MCCARR RIVER RIY 1 0.05000 0.00000 0.00000 REPUBLIC OF GERWANT, HONGER, LAKE RIVER RIY 1 0.05000 0.00000 0.00000 REPUBLIC OF GERWANT, HONGER, LAKE RIVER RIY 1 0.05200 0.00000 0.00000 REPUBLIC OF GERWANT, HONGER, LAKE RIVER RIY 1 0.05200 0.00000 0.00000 REPUBLIC OF GERWANT, HONGER, HAVER RIY 1 0.05500 0.00000 0.00000 REPUBLIC OF GERWANT, HONGER, HAVER RIY 1 0.05500 0.00000 0.00000 REPUBLIC OF GERWANT, HONGER, RIVER RIY 1 1 1 0.00000 0.00000 REPUBLIC OF GERWANT, HONGER, RIVER RIY 1 0.05000 0.0000	.ocat ion	type ^a	samples	Average	Maximum	Coments	Reference
REPUBLIC OF GERMANY, SIFGBURE, SIEG RIVER RIV 1 0.00000 0 0.00000	ED. REPUBLIC OF GERMANY, DUISBURG, RIBHR BIVER) A	-	.0000	00000		
REPUBLIC OF GERMANY, FALEBACK, LAHIR RIVER RIY 1 0.66500 0.00000 REPUBLIC OF GERMANY, FALEBACK, LAHIR RIVER RIY 1 0.05000 0.00000 REPUBLIC OF GERMANY, RAMERIN, MAIN RIVER RIY 1 0.05400 0.00000 REPUBLIC OF GERMANY, RAMBERIN, MAIN RIVER RIY 1 0.05000 0.00000 REPUBLIC OF GERMANY, HIGH REGAL LAKE COMSTANCE LAK 1 0.04500 0.00000 REPUBLIC OF GERMANY, LANGEMARGEN, LAKE COMSTANCE LAK 1 0.04500 0.00000 REPUBLIC OF GERMANY, LANGEMARGEN, REGALIT RIVER RIY 1 0.14000 0.00000 REPUBLIC OF GERMANY, LANGEMARGEN, REGALIT RIVER RIY 1 0.05500 0.00000 REPUBLIC OF GERMANY, BELLINGATON, MAYEL RIVER RIY 1 0.05500 0.00000 REPUBLIC OF GERMANY, BELLINGATON, MAYEL RIVER RIY 1 0.00000 0.00000 REPUBLIC OF GERMANY, BELLINGATON, MAYEL RIVER RIY 5 0.00000 0.00000 REPUBLIC OF GERMANY, BELLINGATON, MAYEL RIVER RIY C 0.00000 0.00000 <td>PEDING IC OF CEDIMANY CITCHING CAR ASS</td> <td>• • •</td> <td>-</td> <td>00000</td> <td>0.0000</td> <td></td> <td>HER2/2</td>	PEDING IC OF CEDIMANY CITCHING CAR ASS	• • •	-	00000	0.0000		HER2/2
REPUBLIC OF GERMANY, RAMBACH, LAIN RIVER RIV 1 0.00000 0 REPUBLIC OF GERMANY, ROBLERAY, MOSELLE RIVER RIV 1 0.05000 0.00000 REPUBLIC OF GERMANY, RAMBELIN, MAIN RIVER RIV 1 0.05000 0.00000 REPUBLIC OF GERMANY, BELLEBERGE, MECKAR RIVER RIV 1 0.05500 0.00000 REPUBLIC OF GERMANY, LANGENAGER, LAKE CONSTANCE LAK 1 0.05500 0.00000 REPUBLIC OF GERMANY, LANGENAGER, REGHITZ RIVER RIV 1 0.05500 0.00000 REPUBLIC OF GERMANY, BRLIM-GATOR, MAYEL RIVER RIV 1 0.05500 0.00000 REPUBLIC OF GERMANY, HOF, SAALE RIVER RIV 1 0.05500 0.00000 REPUBLIC OF GERMANY, HOF, SAALE RIVER RIV 1 0.05500 0.00000 REPUBLIC OF GERMANY, HOR, SRLIM-GATOR, HAVEL RIV C 1.00000 0.00000 WAY, ARLZEWER, RHINE RIVER RIV C 0.05000 0.00000 WY, LUDMIGSAMER, RHINE RIVER RIV C 0.10000 0.00000 WY, LUDMIGSAMER, RHINE RI	STORES OF GENERAL.	RIV	_	0.61500	0.0000		HER272
REPUBLIC OF GERMANY, KORELE RIVER RIV 1 0.02000 0.000000	REPUBLIC OF GERMANY.	RIV		0.0000	0.0000	70	HFR772
REPUBLIC OF GERMANY, RAMMETH, MAIN RIVER REPUBLIC OF GERMANY, BAND RENECK, MAIN RIVER REPUBLIC OF GERMANY, RELANGEN, REGAITZ RIVER REPUBLIC OF GERMANY, RELANGEN, REGAITZ RIVER RIV 1 0.40000 0.00000 REPUBLIC OF GERMANY, BRILAMER, REGAITZ RIVER RIV 1 0.40000 0.00000 REPUBLIC OF GERMANY, BRILAMEN, REGAITZ RIVER RIV 1 0.40000 0.00000 REPUBLIC OF GERMANY, BRILAMEN, MAIN RIVER RIV 1 0.40000 0.00000 RY, ARTZENHEIN, RHINE RIVER RIV 1 0.40000 0.00000 RY, ARTZENHEIN, RHINE RIVER RIV 1 0.42000 0.00000 RY, LUMIGSIALEN, RHINE RIVER RIV 1 0.00000 RY, LUMIGSIALEN, RHINE RIVER RIV 1 0.00000 RY, LUMIGSIALEN, RHINE RIVER RIV 1 0.00000 RY, LUMIGSIALEN, RHINE RIVER RY 1 0.00000 RY, RY 1 0.00000 RY, RY 1 0.00000 RY, RY 1 0.00000 RY, RY 1 0.00000 RY 1 0.00000 RY, RY 1 0.00000 RY, RY 1 0.00000 RY, RY 1 0.00000 RY	REPUBLIC OF GERMANY, KOBLENZ, MOSELLE A	RIV	_	0.02000	0.0000	•	UE0772
REPUBLIC OF GERMANY, BAOD REMECK, WAIN RIVER RIV 1 0.03000 0.00000 d REPUBLIC OF GERMANY, HEIDEEBERGE, MCCAR RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERMANY, HEIDEEBERGE, MCCAR RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERMANY, HEIDEEBERGE, MCCARAGE LAK 1 0.0000 0.00000 0.00000 d REPUBLIC OF GERMANY, HEIDEERIZ RIVER RIV 1 0.05500 0.00000 0.00000 d REPUBLIC OF GERMANY, HEIDE RIVER RIVER RIV 15 0.00500 0.00000 0.00000 d REPUBLIC OF GERMANY, HEIDE RIVER RIVER RIV 15 0.00500 0.00000 0.00000 d REPUBLIC OF GERMANY, HEIDE RIVER RIVE C 0.00000 0.00000 d RY, HALSBURG, RHINE RIVER RIVER RIVER RIVER RIVE C 0.15000 0.00000 d RY, LUBNIGSMAFEN, RHINE RIVER RIVER RIVE C 0.15000 0.00000 d RY, LUBNIGSMAFEN, RHINE RIVER RIVER RIVE C 0.15000 0.00000 d RY, LUSNIGSMAFEN, RHINE RIVER RIVER RIVER RIVE C 0.15000 0.00000 d RY, LUSNIGSMAFEN, RHINE RIVER RIVER RIVE C 0.15000 0.00000 d RY, LUSNIGSMARAN, SAMAGANG, SURABAYA RIV C 0.10000 0.00000 d RY, LUSNIGSMARAN, SAMAGANG, SURABAYA RIV Z 0.00000 0.00000 d RY, CALCUITA SAMGES RIVER	REPUBLIC OF	RIV	_	0.06400	0.0000		HFR772
REPUBLIC OF GERNANY, HEIDELBERG, MECKAR RIVER REPUBLIC OF GERNANY, HEIDELBERG, MECKAR RIVER REPUBLIC OF GERNANY, LAWGENARGEN, LAKE COMSTANCE LAK REPUBLIC OF GERNANY, HOF, SAALE RIVER RIV 1 0.05500 0.00000 0.00000 REPUBLIC OF GERNANY, HOF, SAALE RIVER RIV 1 0.05500 0.000000	REPUBLIC OF GERMANY, BAD BERNECK, MAIN	RIV	_	0.03000	0.0000		UCB373
CE LAK 1 0.02500 0.00000 RIV 1 0.14000 0.00000 RIV 1 0.05500 0.00000 RIV 15 0.06500 7.1000 RIV c 1.0000 0.00000 RIV c 0.4200 0.00000 RIV c 0.4200 0.00000 RIV c 0.2900 0.00000 RIV c 0.1500 0.00000 RIV c 0.1500 0.00000 RIV c 0.1500 0.00000 RIV c 0.1200 0.00000 RIV c 0.1200 0.00000 GW d 0.0000 0.00000 GW d 0.00000	REPUBLIC OF GERMANY, HEIDELBERG, MECKAR	RIV	_	0.0000	0.0000	7	HER272
RIV 1 0.14000 0.00000 RIV 1 0.05500 0.00000 RIV 15 0.06500 7.10000 RIV c 1.00000 0.00000 RIV c 0.42000 0.00000 RIV c 0.42000 0.00000 RIV c 0.29000 0.00000 RIV c 0.15000 0.00000 RIV c 0.15000 0.00000 RIV c 0.15000 0.00000 RIV c 0.15000 0.00000 GW 4 0.00000 0.00000 GW 4 0.00000 0.00000 SW 2 0.00000 0.00000 PMD 2 0.00000	UF GERMANY, LANGENARGEN, LAKE	ΓĶ	_	0.02500	0.0000		HFP772
RIV 1 0.05500 0.00000 RIV 15 0.06500 0.08000 RIV 15 0.06500 7.10000 RIV c 1.10000 0.00000 RIV c 0.42000 0.00000 RIV c 0.29000 0.00000 RIV c 0.13000 0.00000 RIV c 0.15000 0.00000 RIV c 0.15000 0.00000 RIV c 0.12000 0.22000 GE 1 0.00000 0.00000 GE 1 0.00000 0.00000 GI 0.00000 0.00000 0.00000 GW 0.00000 0.00000 0.00000	GERMANY, ERLANGEN, REGNITZ		_	0.14000	0.0000		HER772
RIV 15 0.00500 0.00800 RIV 15 0.06000 7.10000 RIV C 1.10000 0.00000 RIV C 0.42000 0.00000 RIV C 0.29000 0.00000 RIV C 0.15000 0.00000 RIV C 0.15000 0.00000 RIV C 0.12000 0.00000 RIV C 0.12000 0.00000 RIV C 0.00000 0.00000 RIV S 0.00000 0.00000 d	EU. REPUBLIC OF GERMANY, HOF, SAALE RIVER		_	0.05500	0.0000		HEB772
RIV 15 0.06000 7.10000 1.100000 1.1000000 1.1000000 1.1000000 1.1000000 1.100000 1.100000 1.100000 1.100000 1.100000 1.100000 1.100000 1.1000000 1.1000000 1.1000000 1.1000000 1.1000000 1.1000000 1.1000000 1.1000000 1.1000000 1	ED. REPUBLIC OF GERMANY, BERLIN-GATON, HAVEL RIVER	RIV	15	0.00500	0.08000		HFR772
RIV C 1.00000 0.00000 RIV C 0.64000 0.000000 RIV C 0.42000 0.000000 RIV C 0.33000 0.000000 RIV C 0.29000 0.000000 RIV C 0.15000 0.000000 RIV C 0.15000 0.000000 RIV C 0.15000 0.000000 RIV C 0.10000 0.000000 BRK 2 0.12000 0.000000 GW 4 0.00000 0.000000 SW 2 0.00000 0.000000 GW 4 0.00000 0.000000 SW 2 0.000000 0.000000	.K.G., BERLIN-LICHTERFELDE, TELTOMKANAL	RIV	15	0.06000	7.10000		MED172
RIVER RIV C 1.10000 0.00000 RIV C 0.64000 0.00000 RIV C 0.33000 0.00000 RIV C 0.29000 0.00000 RIV C 0.15000 0.00000 RIV C 0.15000 0.00000 BRK 2 0.12000 0.20000 GW 4 0.00000 0.00000 KIV 2 0.00000 0.00000 GW 4 0.00000 0.00000 SW 2 0.00000 d	ERMANY, BELLINGEN, RHINE RIVER	RIY	U	000001	0.0000		LECKO A
RIVER RIV C 0.64000 0.00000 RIV C 0.33000 0.00000 RIV C 0.29000 0.00000 RIV C 0.15000 0.00000 RIV C 0.15000 0.00000 BRK Z 0.17000 0.00000 BRK Z 0.12000 0.20000 BRK Z 0.00000 0.00000 BRK Z 0.00000 0.00000 BRK Z 0.00000 0.00000 GW 4 0.00000 0.00000 d SW Z 0.00000 0.00000 d	EKMANT, ARTZEMHEIM, RHINE RIVER	RIV	U	1.10000	0.0000		
RIV C 0.4200 0.00000 RIV C 0.2900 0.00000 RIV C 0.29000 0.00000 RIV C 0.15000 0.00000 RIV C 0.17000 0.00000 BRK Z 0.12000 0.22000 BRK Z 0.12000 0.20000 GW 4 0.00000 0.00000 d SW Z 0.00000 0.00000 d	ERMANY/FRANCE, STRASBOURG, RHINE RIVER	RIV	U	0.64000	0.0000		
RIV C 0.33000 0.00000 RIV C 0.29000 0.00000 RIV C 0.15000 0.00000 BRK 2 0.12000 0.22000 BRK 2 0.12000 0.22000 GW 4 0.00000 0.00000 d SW 2 0.00000 d	ERMANY, KARLSRUME, RHIME RIVER	RIV	U	0.42000			O ALGON
RIV C 0.29000 0.00000 RIV C 0.15000 0.00000 RIV C 0.11000 0.00000 BRK 2 0.12000 0.22000 OCE 1 0.00370 0.00000 d GW 4 0.00000 0.00000 d SW 2 0.00000 0.00000 d	ERMANY, LUDWIGSMAFEN, RHIMF RIVER	210	• •	001100	0.0000		MEGM/8
RABAYA RIV C 0.29000 0.00000 RIV C 0.15000 0.00000 BRK Z 0.12000 0.22000 GE 1 0.00370 0.00000 d RIV Z 0.00000 0.00000 GW 4 0.00000 0.00000 d SW Z 0.00000 d	ERMANY, MAINZ, RHIME DIVED	7 T	v	0.33000	0.0000		WEGHV8
RABAYA RIV C 0.15000 0.00000 RIV C 0.11000 0.00000 BRK 2 0.12000 0.22000 GE 1 0.00370 0.00000 d RIV 2 0.00000 0.00000 d SW 2 0.00000 0.00000 d	FRAME I FREDRICE DURING DIVID	A 1 4	U	0.29000	0.0000		WEGM78
SURABAYA RIV C 0.11000 0.00000 BRK 2 0.12000 0.22000 GE 1 0.00370 0.00000 GW 4 0.00000 0.00000 RIV 2 0.00000 0.00000 SW 2 0.00000 DWD 2 0.00000 GOODD	FREEDY DISCRIBE BUINE DISCRIPE	KIV	U	0.15000	0.0000		MEGN78
A, SAMARANG, SURABAYA RIY 3 0.2000 0.22000 EA GAMGES RIVER SAM 2 0.00000 0.30000 GW 4 0.00000 0.00000 A 0.00000 0.00000 BM 2 0.00000 C 0	MONECLE SCHOOL MINE KINEK	RIV	U	0.11000	0.0000		WEGN78
RIV 3 0.20000 0.30000 OCE 1 0.00370 0.00000 GW 4 0.00000 0.00000 d RIV 2 0.00000 0.00000 d SW 2 0.00000 0.00000 d	MONESTA JACARA	BRX	2	0.12000	0.22000		PHRM77
00E 1 0.00370 0.00900 6W 4 0.00000 0.00000 RIV 2 0.00000 0.00000 5W 2 0.00000 0.00000	HOWESTA, CARAKIA, SAMMANG, SUKABAYA	RIV	m	0.2000	0.30000		DIEDM77
6W 4 0.00000 0.00000 d RIV 2 0.00000 0.00000 d SW 2 0.00000 0.00000 d	MUNESIA, JAVA SEA	300		0.00370	0.0000		TANAR
Si 2 0.0000 0.00000 d	MUIA, CALCUITA	N9	4	0.0000	0.000	•	
SW 2 0.0000 0.0000 d	NOIA, CALCUTTA, GANGES RIVER	RIV	~	0.0000	0.0000	.	MUKASU
PMD 2 A CONCO	MDIA, CALCUTTA	3	2	0.0000	0 0000	, ,	- COUNTY
	NDIA, CALCUTTA	CMG	•	90000	00000	.	MUKHBO

Table C-7. (Continued)

	1	•	Repo	Reported values (µg/L)	·	
Location	Water type ²	Ko. of samples	Average	Hax inum	Coments	Reference
INDIA. MYSORE DISTRICT	U	[0.0000	1200.0000		PA.NB2
INDIAN OCEAN, JAYA TRENCH	90	, ,	0.00250	0.0000		TAMAR
INDIAN OCEAN, S. OF INDONESIA	90	_	0.00290	0.0000		TANA82
INDIAN OCEAN	90E	سم	0.00150	0.0000		TANAB2
INDIAN OCEAN, OFF W. AUSTRALIA	90E	_	0.00093	0.0000		TAKA82
INDIAN OCEAN, S. OF AUSTRALIA	330	-	0.00020	0.0000		TANA82
IRELAMD, LOUGH VEIGH	RIV	U	0.00200	0.0000		HARP80
NORTHERN IRELAND, LOUGH NERIGH, BLACKMATER RIVER	RIV	30	0.01100	0.0000		HARP77
MORTHERN IRELAND, LOUGH MERIGH, MAIN RIYER	RIV	30	0.02000	0.0000		HARP 7.7
NORTHERN IRELAND, LOUGH NERIGH, MOYOLA RIVER	RIY.	30	0.01200	0.0000		HARP77
MORTHERN IRELAND, LOUGH NERIGH, SIX MILE MATER	RIV	30	0.01600	0.0000		HARP 7.7
NORTHERN IRELAND, LOUGH NERIGH, UPPER BAIN RIVER	RIV	8	0.02300	0.0000		HARP77
MORTHERN IRELAND, LOUGH WERIGH, BALLINDERRY RIVER	RIV	30	0.01000	0.0000		HARP 7.7
I RAN	P	8	0.0000	1920.00000		161109
ISPAEL, LAKE KINNERET	LAK	23	0.00008	0.02210	·	KAHA74
ISRAEL, LAKE KINNERET NATERSHED, DAN RIVER AT FOUNT	RIV	_	0.0000	0.0000	d, e	KAHA74
SRAEL, JORDAN RIVER	RIV	y	0.00030	0.00520	•	KAHA74
I SRAEL, MESHUSHIM RIVER	RIV	-	0.00010	0.0000	ď	KAHA74
ISRAEL, LAKE KINNERET NATERSHED	OR.W	e	0.0000	0.00061	ė	KAHA74
ISRAEL, JORDAN RIVER (LONER)	RIV		0.11900	0.0000	e	KAHA74
I SRAEL, VASUOR RESERVOIR	RES		0.01420	0.0000	· •	KAHA74
I SAAEL, BEL-NOTAFA RESERVOIR	RES	-	0.00270	0.00000	•	XAHA74
ISRAEL, KISHON RESERVOIR	RES	,- -	0.00210	0.0000	u	KAHA74
I SREAL, KI SHON RESERVOIR, HORTH	RES	_	0.00170	0.00000	a.	KAHA74
I SPAEL, KI SHON RESERVOIR, SOUTH	RES	٣	0.00300	0.02100	e	KAHA74
I SRAEL, GEVAT RESERVOIR	RES	m	0.00190	0.00630	ø	KAHA74
ISRAEL, GEVAT RESERVOIR ENTRANCE	RES	→	0.00040	0.00440	w	KAHA74

Table C-7. (Continued)

*	Water	No. of	Repor	Reported values (119/L)	•	
Location	type	s amples	Average	Max imum	Coments	Reference
I SAAEL, ZOHAR RESERVOIR	RES		0 00260	00000		VAUATA
ISRAEL, COASTAL AQUIFER	35		0.0000	00000	v •	1. 4114.74
I SRAEL, CONSTAL AQUIFER	35	ـــ ،	0.000.0	00000	- 16	LAMA/4
ISRAEL, COASTAL AQUIFER	75	-	0.0000	00000	•	LAMA 4
I SRAEL, COASTAL AQUIFER	75 15	•	0.00240	0.00760	•	L AHA74
ISAAEL, COASTAL AQUIFER	M9	-	0.0000	0-0000	₹	1 AWA74
COASTAL	3 9	_	0.0000	0.0000	ם י	L AHA74
COASTAL	A 9	_	0.0000	0.0000	•	1 AHA74
COASTAL	75	- -	0.0000	0.0000	•	1 AHA74
	79	_	0.00054	0.00000		I AHA74
-	7 9	m	0.0000	0.0000	9	LAHA74
	3 9	-	0.0000	0.0000	70	LAHA74
ISRAEL, COASTAL AQUIFER	75	-	0.01490	0.0000		LAHA74
ITALY, PO RIVER	RIV	81	0.00200	0.01300	ø	GAI AR1
ITALY, ADIGE RIVER	RIV	81	0.00100	0.00700	n er	GAL AB 1
LIALY, COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN	S	5	0.0000	0.02000	•	POI FR3
JAPAN, KITAKYUSHU DISTRICT, TONDA RESERVOIR	S	00	0.0000	0.10000		YAMBOB
JAPAN, KIIAKTUSHU DISTRICT, OMGA RIVER	RIV	9	0.0000	0.11000		YAMABOB
JAPAN, HIND, TANGGAMA RIVER	RIV	,	0.00500	0.23400		OCH176
JAPAN, MUKBUKITU, TAMBAMA RIYER	R 3	7	0.01600	0.14500		OCH176
JAPAN, MAKIKO, TAMBAMA RIVER	RIV	1	0.02400	0.17900		OCH176
JAPAN, KTUKU KEITO, M. PACIFIC OCEAN	20	_	0.00140	0.0000		TANAR
JAPAY, MAPO SHOTO/120 TRENCH, N. PACIFIC OCEAN	30		0.00025	0.0000		TAW82
JAPAN, MAPO SHOTO, N. PACIFIC OCEAN	3	_	11000.0	0.0000		TANAR
KERTA, WAKURU MATIONAL PARK, LAKE MAKURU	Ľ¥	(mip	0.0000	0.0000	7	GRE 178A
THEN THE TANDONG PIANDANG	PAD	m	0.6000	0.0000		HE1E83

Table C-7. (Continued)

	Water	No. of	Report	Reported values (119/L)	(-	
Location	type	samples	Average	Naxinum	Comments	Reference
MALAYSIA, KRIAN DIST, PERAK STATE, SUNGEI KOTA FIELD	PAD	3	0.1000	0.0000		ME1683
MALAYSIA, KRIAN DIST, PERAK STATE, JALAN BHARU SUMP	P. W.O	м	0.0000	00000	70	METERS
MALAYSIA, KRIAN DIST, PERAK, PARIT TANJONG PIANDANG	CAN	м	0.10000	0.0000	•	METER3
MALAYSIA, KRIAN DIST, PERAK STATE, SUNGEI BURONG	CA	٣	0.10000	0.0000		ME1E83
NETHERLANDS/GERMANY, LOBITH, RHINE RIVER	RIV	v	0.13000	0.0000		HEGN78
NETHERLANDS, ROTTERDAM, RHINE RIVER	RIV	U	0.10000	0.0000		MEGM78
METHERLANDS/GERMANY, LOBITH, RHINE RIVER	RIV	Ų	0.02000	0.18000		HEGH78
MORIMAY, STRYKEN, RIVER NITELYA	RIV	U	1.40000	0.0000		SCH081
MORMAY, KJELLERHOLEM, RIVER NITELVA	RIV	U	1.40000	0.0000		SCH08 1
MORMAY, SAGDALVELVA, RIVER MITELVA	RIV	U	1.60000	0.0000		SCHOR
NORWAY, LEIRAL VELVA, RIVER MITELVA	RIV	U	0.9000	0.0000		SCH081
NORWAY, LILLESTROMA, LAKE OYEREN	Z K	Ų	4.00000	0.0000		SCH081
PACIFIC OCEAN, NELANESIA	OCE	,-	0.00045	0.0000		TANA82
N. PACIFIC OCEAN, EAST CAROLINE BASIN	300	,	0.00027	0.0000		TANAR
M. PACIFIC OCEAN, WAIAMA TRENCH	OCE.	_	0.00021	0.0000		TANAB2
N. PACIFIC OCEAN, AGRIHAN ISLAND	33		0.00059	0.0000		TANAR
N. PACIFIC OCEAN	9CE	_	0.00016	0.0000		TANAB2
RHOGESIA, LAKE MCILHAINE	Ę	_	0.0000	0.0000	70	GRF 1788
SWITZERLAND, RHEINFELDEN, RHINE RIVER	RIV	U	0.02000	0.0000	,	WEGN78
SWITZERLAND, BASEL, RHINE RIVER	RIV	U	0.47000	0.0000		NEGN78
TASMAN SEA	90E	_	0.00019	0.0000		TANA82
USA, ATLANTIC OCEAN	9CE	U	0.0000	0.0000	<u>.</u>	JOHA76
USA, NORTH ATLANTIC OCEAN	OCE.	U	0.0000	00000	; 1900	JONA76
USA, NORTH ATLANTIC OCEAN	3	U	0.0000	0.0000	سيه	304476
NORTH ATLANTIC	30	U	0.0000	0.0000	يد د	JONA76
USA, MORTH ATLANTIC OCEAN	30	_	0.0000	0.0000	e.	J04476

Table C-7. (Continued)

Ý	Water	No. of	Repor	Reported values (ug/L)	a	
Location	type	samples	Average	Maximum	Coments	Reference
USA, MORTH ATLANTIC OCEAN	300	_	0.0000	00000	d. i	JONA76
USA, MORTH ATLANTIC OCEAN	30	-	0.0000	0.0000	. .	JONA76
USA, MORTH ATLANTIC OCEAN	300	~	0.0000	0.0000	, A	JONA76
USA, MORTH ATLANTIC OCEAN	90E	_	0.0000	0.0000	.	30NA76
USA, NORTH ATLANTIC OCEAN	300		0.0000	0.0000	, ,	JOHA 76
USA, MORTH ATLANTIC OCEAN	90CE	_	0.0000	0.00000	, p	JONA76
MORTH ATLANTIC	300	,	0.0000	0.0000	.	JOHA76
USA, MORTH ATLANTIC OCEAN	30	_	0.0000	0.00000	4.0	JONA76
NORTH ATLANTIC	. 906	_	0.0000	0.0000	, ,	JONA 76
USA, HORTH ATLANTIC OCEAN	300	_	0.0000	0.0000	- - 0	JONA76
NORTH ATLANTIC	300	,	0.0000	0.0000	d,	JONA 7 6
, MORTH ATLANTIC	300	-	0.0000	0.0000	4	JONA76
MORTH ATLANTIC	300		00000	0.0000	d, j	JONA76
MORTH ATLANTIC	OCE	***	0.0000	0.0000	đ, k	JONA76
NORTH ATLANTIC	300	_	00000	0.0000	d,	JONA 7 6
USA, MORTH ATLANTIC OCEAN	300 0CE		0.0000	0.0000	, p	JONA76
USA, MORTH ATLANTIC OCEAN	300	,- -	0.0000	0.0000	d, i	JOHA 76
ED STATES	U	_	0.0000	0.0000	b	JONA76
MORTH ATLANTIC	300	_	0.0000	0.0000	Đ.	JONA 76
MORTH ATLANTIC	300	_	0.0000	0.0000	, t	JONA76
MORTH ATLANTIC	300	<i>(</i>	0.0000	0.0000	d, j	JONA76
, MORTH ATLANTIC	300	-	0.0000	0.0000	6 , 8	JONA76
NORTH ATLANTIC	300	-	0.0000	0.0000	,	JONA76
MORTH ATLANTIC	30 0CE	_	0.0000	0.00000	, ,	30NA76
MORTH ATLANTIC	300	,-	0.0000	0.0000	ن .	JONA 7 6
USA, MORTH ATLANTIC OCEAN	90CE	-	0.0000	0.0000	· -6	3CAMOL.

Table C-7. (Continued)

	Vator	No. of	v de la composition della comp	ucha rea seines migri	•	
Location	typea	samples	Average	Nax imus	Comments	Reference
USA, MORTH ATLANTIC OCEAN	300	_	0.0000	0.0000	d, h	JONA76
USA, NORTH ATLANTIC OCEAN	. OCE	-	0.0000	0.0000	, ,	JONA76
USA, MORTH ATLANTIC OCEAN	OCE		0.0000	000000	d, i	JORA76
USA, MORTH ATLANTIC OCEAN	300	_	0.0000	0.0000	, 6 , K	JONA 76
USA, NORTH ATLANTIC OCEAN	900	_	0.0000	0.0000	.	JONA 76
USA, NORTH ATLANTIC OCEAN	300	_	0.0000	0.0000	d, i	JOHA76
USA, WORTH ATLANTIC OCEAN	300	~	0.0000	0.0000	d , .	JONA 76
USA, WORTH ATLANTIC OCEAN	300		0.0000	0.0000	d. K	JOHA76
OCE = creek; DRN = drainage; GN = groun.	round water; LAK = lake; nd. RFK = recervoir:	ke;	Number of 1	Number of locations sampled: 193	i: 193	130
<pre>U.t. = ocean; PAU = paody; PAU = pond; RES = reservoir; RIV = river; RMF = runoff; SM = surface water; TAP = tap water; WST = waste water.</pre>	nd; KES = reservoir; rface water; TAP = ta	p water;	Number of s Mean of the Highest of	Number of samples within detection limits: 129 Mean of the highest reported values: 25.24636 Highest of the reported values: 1920,00000	etection limits: Ed values: 25.24 Lues: 1920.nnnn	: 125 :4636 IN
Standard deviation = 5.10 ng/L.			Standard de	Standard deviation: 201.74274		2
Uncertain.			Mean of the	Mean of the natural logarithms:	thms: -3.52994	
Not detected.			Standard de	Standard deviation of the natural	7	
Detection limit = <1 ng/L.			logarith	logarithms: 3.07994		
Trace amount detected.						
Detection limit = 1 ng/L.						
Depth = 0 m.						
Depth = 50 m.						
Depth = 500 m.						

Table C-8. Monitoring data for captan in water.

•	4 d d d d d d d d d d d d d d d d d d d	Rep	Reported values (119/L)	(1/611)	
Location	type samples .	Average	Nax imum	Comments	Reference
TAIMAN, TEH-CHI MATERSHED USA, CALIFORNIA	RIV 69 GN 22	0.0000	0.0000	, ¢	WOMER 3
* Water types: BRK = brackish; CAM = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RIV = river; RNF = runoff; SW = surface water; TAP = tap water; WST = waste water. b Not detected. C Detection limit = 5.0 ppb.	iake; Ip water;	Statistics: Number of 16 Number of 56	Statistics: Number of locations sampled: 2 Number of samples within detect:	Statistics: Number of locations sampled: 2 Number of samples within detection limits: (imits: 0

Table C-9. Monitoring data for carbaryl in water.

	Later	9	Reported values (1.g/L)	(1/6ri)		
Location	type	samples	Average	Nax faum	Comments	Reference
EGYPT, GIZA NETHERLANDS/GERMANY/SWITZERLAND, RHINE RIVER NETHERLANDS/GERMANY/SWITZERLAND, RHINE RIVER	DRN RIV RIV	0 U U	0.00000	0.00000	م	OSMAGOA GREV72 GREV72

* Water types: BRK = brackish; CAM = canal; CIS = cistern;
CRK = creek; DRM = drainage; GM = ground water; LAK = lake;
OCE = ocean; PAD = paddy; PND = pond; RES = reservoir;

OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RIV = river; RNF = runoff; SW = surface water; TAP = tap water;

WST = waste water.

b Not quantified. C Uncertain.

Number of locations sampled: 3
Number of samples within detection limits: 2
Mean of the highest reported values: 0.40000
Highest of the reported values: 0.40000
Standard deviation: 0.14142
Mean of the natural logarithms: -1.26280
Standard deviation of the natural
logarithms: 6.49022

Statistics:

Table C-10. Monitoring data for chlordane^a in water.

	Water	No. of	Repor	Reported values (119/L)	9/1)	
Location	type ^a	samples	Average	Hax imum	Coments	Reference
KENYA, MAKURU MATIONAL PARK, LAKE MAKURU	FAK	-	0.0000	0.0000	U	GRE 178A
RHODESIA, LAKE MCILMAINE	ĽK	, ,	0.0000	0.0000	U	GRE 1788
USA, CALIFORNIA	3	22	000000	0.0000	0	MADD82
A Isomers not specified by authors. b Water types: BRK = brackish; CAN = canal; CIS = cistern; CRK = creek; DRN = drainage; GM = ground water; LAK = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RIV = river; RNF = runoff; SM = surface water; TAP = tap water; C Not detected. Detection limit = 5.0 ppb.	; CIS = cistern; und water; LAK = lake; RES = reservoir; ce water; TAP = tap water	·•	Statistics: Number of 1	Statistics: Number of locations sampled: 3 Number of samples within detect	Statistics: Number of locations sampled: 3 Number of samples within detection limits:	lts: 0

Table C-11. Monitoring data for cis-chlordane in water.

Ý	Water	10° of	Repor	Reported values (µg/L)	9/L)	
Location	type	samples	Average	Hax inua	Coments	Reference
BERMUDA, SARGASSO SEA	J.C.	-	0.000	0.000	4	R10173
BERNUDA, SARGASSO SEA	300		0.0000	0,0000		RID 73
BERMUDA, SARGASSO SEA	OCE.	_	000000	0.0000	ه ر	B10L73
BERNUDA, SARGASSO SEA	OCE	_	0.0000	0.0000	U	810.73
BERMUDA, SARGASSO SEA	OCE	79	0.0000	0.0000	· u	810.73
BERNDA, SARGASSO SEA	OCE	,	0.0000	0.0000	م	810,73
BERMIOA, SARGASSO SEA	300	-	000000	0.0000	v	B10L73
SARGASSO	30 00 1	_	0.0000	0.0000	۵	810,73
SARGASSO	OCE		0.0000	0.0000	U	BIOL73
BERMUDA, SARGASSO SEA	OCE.		0.0000	0.0000	٩	810,73
BERMUDA, SARGASSO SEA	OCE.	_	0,00000	0.0000	U	810,73
SARGASSO	30	_	0.0000	0.0000	۵	810,73
SARGASSO	30	_	000000	0.0000	U	810,73
SARGASSO	30	-	0.0000	0.0000	۵	810.73
SARGASSO	9CE	-	00000-0	0.0000	U	810,73
	OCE	~	0.0000	0.0000	۵	810,73
ITALY, COASTAL ARCH N. OF TARANTO, TARA RIYER BASIN	æ	S	000000	000000	•	POLE83

Table C-11. (Continued)

	Water	No. of	Repo	Reported values (µg/L)	1 9 /L)	
Location	type	samples	Average	Max inum	Coments	Reference
MALAYSIA, KRIAN DIST, PERAK STATE, TANJONG PIANDANG	PAD	, E	0.0000	0000000	•	METERS
MALAYSIA, KRIAN DIST, PERAK STATE, SUNGEI KOTA FIELD	PAD	m	0.10000	0.0000)	ME 1592
MALAYSIA, KRIAN DIST, PERAK STATE, JALAN BHARU SUMP	PNO	m	0.0000	0,0000	•	METER3
PALATSIA, KRIAR DIST, PERAK, PARIT, TANJONG PIANDANG	CAN	m	0.10000	0.0000		ME 1683
HALATSIA, KRIAN DIST, PERAK STATE, SUNGEI BURONG	Č	m	0.10000	0.0000		HE IE83
Water types: BRK = brackish; CAN = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RIV = river; RNF = runoff; SN = surface water; TAP = tap water; Depth = 30 cm. C Depth = 150 µm. d Uncertain. e Not detected.	tern; .AK = leke; rvoir; IP = tap wate	r.	Statistics: Number of 1, Rumber of 5 Hean of the Highest of Standard de Mean of the Standard de Standard de Incomplète	Statistics: Number of locations sampled: 22 Number of samples within detection Mean of the highest reported value Highest of the reported values: Standard deviation: 0.00000 Mean of the natural logarithms: Standard deviation of the natural	Statistics: Number of locations sampled: 22 Number of samples within detection limits: 3 Mean of the highest reported values: 0.10000 Highest of the reported values: 0.100000 Standard deviation: 0.00000 Mean of the natural logarithms: -2.30258 Standard deviation of the natural	1ts: 3 0.10000 000 258

Table C-12. Monitoring data for trans-chlordane in water.

	E ST	j	Repor	Reported values (µg/L)	9/د)	
Location	type	saples .	Average	Maximum	Coments	Reference
BERMIDA, SARGASSO SEA	900	,	00000	Owner o	4	91N 23
BERMUDA, SARGASSO SEA	330		00000	90000) (910.73
BERMUDA, SARGASSO SEA) (E		0.0000	0.0000	م ر	810.73
BERMUDA, SARGASSO SEA	OCE	_	0.0000	0.0000	. .	810173
	90E	_	0000000	0.0000	· u	810.73
SARGASSO	300	_	0.0000	0.0000	م	810173
BERMUDA, SARGASSO SKA	OCE	_	00000-0	0,0000	u	8101/3
SARGASSO	OCE.	-	0.0000	0.0000	م	810,73
SARGASSO	3.		0.0000	0.0000	U	810.73
DERMINA, SAKGASSO SEA	OČE		0.0000	0.0000	۵	810.73
BERMELA, SARGASSO SEA	OCE.	_	0.0000.0	0.0000	U	810,73
	30 00 00 00		0.0000	0.0000	٩	810.73
SARGASSO	OCE	~	000000	000000	Ų	810.73
	OCE	_	0.0000	0.0000	م	8101.73
BERMUDA, SARGASSO SEA	OCE	_	0.00000	0.0000	U	810.73
BENTALIA, SARGASSO SEA	OCE OCE		0.0000	0.0000	۵	BIO 73
ITALY, COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN	AS	s	0.0000	000000	75	POLE83

Table C-12. (Continued)

	Water	Ko. of	Repo	Reported values (119/L)	(1/6	
Location	type	saldnes	Average	Nax inun	Comments	Reference
MALAYSIA, KRIAN DIST, PERAK, PARIT, TANJONG PIANDANG	CAR	. 6	0.50000	00000.0		METER3
MALAYSIA, KRIAN DIST, PERAK STATE, TANJONG PIANDANG	PAD	m	0.0000	0.0000	70	ME 1E83
MALAYSIA, KRIAN DIST, PERAK STATE, SUNGEI KOTA FIELD	PAO	m	0.0000	0.0000	79	ME IE83
THEATSIA, KRIAN DISI, PERAK STATE, JALAN BHARU SUMP	S	m	0.30000	0.0000		ME1E83
MLAYSIA, KRIAN DISI, PERAK STATE, SUNGEI BURONG	CAR	m	0.10000	0.0000		ME 1E83
* Water types: BRK = brackish; CAN = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAK = OCE = ocean; PAD = paddy; PND = pond; RES = reserveir; RIV = river; RNF = runoff; SW = surface water; TAP = t. WST = waste water. b Depth = 30 cm. c Depth = 150 µm. d Not detected.	CIS = cistern; nd water; LAK = lake; RES = reservoir; e water; TAP = tap water;	Ë	Statistics: Humber of 14 Number of 54 Nean of the Highest of Standard de Nean of the Standard de	Statistics: Number of locations sampled: 22 Number of samples within detection Hean of the highest reported value Highest of the reported values: Standard deviation: 0.20000 Mean of the natural logarithms: Standard deviation of the natural	Statistics: Number of locations sampled: 22 Number of samples within detection limits: 3 Mean of the highest reported values: 0.30000 Highest of the reported values: 0.50000 Standard deviation: 0.20000 Mean of the natural logarithms: -1.39990 Standard deviation of the natural	1ts: 3 3.30000 00

Standard deviation: 5.38555
Mean of the natural logarithms: -0.87671
Standard deviation of the natural logarithms: 2.41377

Table C-13. Monitoring data for CNP in water.

	Nat er	9	æ	Reported values (119/L)	(1/6n)	
Location	type	sæples.	Average	Nax inum	Coments	Reference
JAPAN, KITAKYUSHU DISTRICT, EYE RIVER	RIV	. 01	0.0000	0.33000		8/nzns
JAPAN, KITAKYUSHU DISTRICT, ONGA RIVER	RIV	01	0.0000	0.5000		SUZUZ8
JAPAN, KITAKYUSHU DISTRICT, OUNA RIVER	RIV	2	0.0000	2.00000		8 <i>L</i> 020S
JAPAR, KITAKYUSHU DISTRICT, MISHITANI RIYER	RIV	2	0.0000	0.17000		SUZUZ8
JAPAN, KITAKYUSHU DISTRICT, HIGASHITAMI RIVER	RIV	2	00000-0	16.67000		Su2u78
JAPAN, KITAKYUSHU DISTRICT, CHIKUMA RIVER	RIV	01	0.0000	0.43000		SUZU78
JAPAN, KITAKYUSHU DISTRICT, NUKI RIVER	RIV	5	000000	0.59000		SuZu28
JAPAN, KITAKYUSHU DISTRICT, MURASAKI RIVER	RIV	9	0,0000	0.83000		SUZUZ8
JAPAH, TOKYO BAY	3.	25	0.0000	0.00190		YAMBI
a Water types: 8RK = brackish; CAN = canal; CIS =	CIS - cistern;		Stat ist ics:	3:		
CRK = creek; DRN = drainage; GW = ground water; LAK = lake;	er; LAK - lake;		Number o	Number of locations sampled: 9	ampled: 9	;
RIV = river: RNF = runoff: SN = surface water	KES = reservoir; :e water: TAP = tan water:	<u>:</u>	Mean of	r samples wil	Number of Samples within detection limits: 9 Maan of the bichest renorted values: 2.3932	imits: 9
WST = waste water.		•	Highest	of the report	Highest of the reported values: 16,67000	67000

Table C-14. Monitoring data for 2-4,D in water.

	200	9	Repo	Reported values (119/L)	(ገ/6ሺ	
Location	type	samples	Average	Nax inun	Coments	Reference
INDONESIA, JEPARA INDONESIA, JAKARTA, SAMARANG, SURABAYA	BRK RIV	- E	0.01000	0.00000		PURUT 7 PURNT 7
Water types: BRK = brackish; CAN = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RIV = river; RNF = runoff; SW = surface water; TAP = tap wai	IS = cistern; water; LAK = lake; S = reservoir; water; TAP = tąp water;	ater:	Statistics: Number of 1 Number of 5 Nean of the Highest of Standard de Hean of the Standard de	Statistics: Number of locations sampled: 2 Number of samples within detection Hean of the highest reported value Highest of the reported values: Standard deviation: 0.14849 Hean of the natural logarithms: Standard deviation of the natural logarithms:	Statistics: Number of locations sampled: 2 Number of samples within detection limits: 2 Hean of the highest reported values: 0.11500 Highest of the reported values: 0.22000 Standard deviation: 0.14849 Hean of the natural logarithms: -3.05964 Standard deviation of the natural logarithms: 2.18568	11500

Table C-15. Monitoring data for p,p'-DDD in water.

			Reporte	Reported values (119/L)		
Location	type ^a	samples	Average	Hax fmum	Coments	Reference
CANADA, HAMILION, LAKE ONTARIO	Į V	-	050000 .	0.0000	<u> </u>	W1.79
CAMADA TODONTO LAKE ONTABLO	1	. 4	0.00150		,	02 1 101
CAMADA/IISA MIACADA DIVED) A	2	00000			141.79
CAMADA FOR RIDG 1 AFF CATABLE		. 4	0.0000	00000		1000
FCYPT FI -CAI AAM	ב ב	a -	0.000		•	EI 7683
EGYPT, EL-SALAM	3 3	, pa	0.0000	0.0000	,	EL 2A83
EGYPT, EL-SALAM	39		3,20000	00000		EL 2A83
EGYPT, EL-SALAM	M9		0.08000	0.00000		EL ZAB3
EGYPT, EL-SALAAM	8 9	_	0.14000	0.0000		E1.2A83
EGYPT, EL-SALAM	N9	_	0.0000	0.0000	•	E1.ZA83
EGYPT, EL-SALAAN	R9	_	0.12000	0.0000		EL 2A83
EGYPT, EL-SALAAM	A 9	_	0.0000	0.0000	70	EL ZAB3
EGYPT, EL-SALAM	3	_	0.0000	0.0000	70	EL 2A83
EGYPT, EL-SALAM	A9		0.0000	0.0000	70	EL 2A83
EGYPT, EL-SALAM	35	_	0.0000	0.0000	7	EL 2A83
EGYPT, EL-SALAM	A9	-	0.0000	0.0000	70	ELZA83
EGYPT, EL-SALAM	39	_	0.0000	0.0000	70	EL 2A83
FED. REPUBLIC OF GERMANY, HAMBURG, ELBE RIVER	RIY	12	0.0000	0.0000	79	HER 272
FED. REPUBLIC OF GERMANY, LAUENBURG, ELBE RIVER	RIV	_	00000	0.0000	79	HER272
FED. REPUBLIC OF GERMANY, BREMEN, WESER RIVER	RIV	15	0.0000	0.0000	•	HER272
REPUBLIC OF GERMANY,	RIV	,	0.0000	000000	70	HER272
REPUBLIC OF	R I V	=	0.0000	0.0000	7	HER272
REPUBLIC OF GERMANY,	RIV	15	0.0000	0.0000	פי	HER 272
FED. REPUBLIC OF GERMANY, WESEL, RHINE RIVER	RIV	_	0.0000	0.0000	•	HER 272
REPUBLIC OF	RIV	_	0.0000	0.0000	7	HER 272
FEO. REPUBLIC OF GERMANY, DESTRICH, RHIME RIVER	RIV	_	0.0000	0.0000	70	HER272
REPUBLIC OF GERMANY,	RIV	15	0.0000	0.0000	70	HER 272
FED. REPUBLIC OF GERMANY, ULM, DAMBE RIVER	RIV	_	0.0000	0.0000	70	HERZ72

Table C-15. (Continued)

	***	4	Reported	Reported values (1991)		
Location	type	samples	Average	Max imum	Coments	Reference
KED DEDIED TO AN CEDMANY THEM CTART DAMMER DIVED	210	-		00000		2000
FED DEDIGETE OF CEDAMA CERCIMON DAMAGE DIVER)		00000		, 1	MENT/C
OCDING IT OF	2 2				,	INCRES C
REPUBLIC OF GENERAL	714				,	MED 772
REPUBLIC OF GERMANY.	RIV	دستو ۱۰	0.0000	00000	9	HER272
REPUBLIC OF GERMANY.	RIV	_	0.0000	0.0000	79	HER272
	RIV		0.0000	0.0000	70	HER272
	RIV		0.0000	0.0000	•	HER272
FED. REPUBLIC OF GERMANY, KOBLENZ, MOSELLE RIVER	RIV	_	0.0000	0.0000	7	HER 272
FED. REPUBLIC OF GERMANY, RAUMKIN, MAIN RIVER	RIV	_	0.0000	0.0000	•	HER272
FED. REPUBLIC OF GERMANY, BAD BERNECK, MAIN RIVER	RIV	_	0.0000	0,0000	•	HER 272
	RIV	_	0.0000	0.0000	70	HER272
FED. REPUBLIC OF GERMANY, LANGENARGEN, LAKE CONSTANCE	LAK	,	0.0000	0.0000	70	HER 272
FED. REPUBLIC OF GERMANY, ERLANGEN, REGNITZ RIVER	RIV	_	0.0000	0.0000	7	HER272
FED. REPUBLIC OF GERMANY, HOF, SAALE RIVER	RIY	,	0.0000	0.0000	۳	HER272
FEO. REPUBLIC OF GERMANY, BERLIN-GATON, HAVEL RIVER	RIV	15	0.0000	0.0000	70	HER272
F.R.G., BERLIN-LICHTERFELDE, TELTONKARAL	RIV	15	0.0000	0.83000		HER272
INDONESIA, JEPARA	8	2	0.0000	0.0000	·	PURN77
INDONESIA, JAKARTA, SAMARAMG, SURABAYA	RIV	7	0.0000	0.15000		PURM77
ISRAEL, LAKE KIMMERET	ž	21	0.0000	0.0000	•	KAHA74
ISRAEL, LAKE KIMMERET MATERSHED, DAN RIVER AT FOUNT	RIY		0.0000	0.0000	d, f	KAHA74
	RIV	ĸ	0.0000	0.00130	4	KAHA74
I SRAEL, HESHUSHIM RIVER	RIV	,	0.0000	0.0000	d, f	KAHA74
ISRAEL, LAKE KIMMERET WATERSHED	88	ო	0.0000	0.0000	d, f	KAHA74
ISRAEL, LAKE KINNERET WATERSHED	UR.N	m	0.0000	0.00000	d, f	KAHA74
	RIV	_	0.0000	0.0000	d, f	KAHA74
ISRAEL, YASUOR RESERVOIR	RES	_	0.0000	0.0000	d, f	KAHA74
I SRAEL, KI SHOH RESERVOIR	RES	_	0.0000	0.0000	d, f	KAHA74

Table C-15. (Continued)

	Water	No. of	reported	reported values (LIG/L.)	•	
Location	type	samples	Average	Maximum	Coments	Reference
SRAEL, KISHOM RESERVOIR, MORTH	RES	-		00000	• *	Arauay
SRAEL, KISHON RESERVOIR, SOUTH	RES	٠ ٨	0.0000	01100	-	A CALLAND
SRAEL, GEVAT RESERVOIR	RES	, ,	0.00040	0.000	- 4	KAUA74
SRAEL, GEVAT RESERVOIR (ENTRANCE)	RES	•	0.0000	0.00430	. •	K Bula 7
SAAEL, ZOHAR RESERVOIR	SE S	_	0.0000	0.0000	· ~	KAUA74
SRAEL, CONSTAL AQUIFER	3		0.0000	0.000	• •	L AUA 74
COASTAL	3		0.0000	0.0000	9	LAHA74
SRAEL, COASTAL AQUIFER	MS	,	0.0000	0.0000	- 15	AVANA I
COASTAL	15		0.0000	0.0000	· ••	LAKA74
COASTAL	39	_	0.0000	0.0000	•	1 AHA74
COASTAL	3		0.0000	0.0000	7	LAHA74
SRAEL, COASTAL AQUIFER	3	-	0.0000	0.0000	15	I AVA74
COASTAL	35		0.0000	0.0000	7	LAHA74
COASTAL	15	_	0.0000	0.0000	79	L AHA74
COASTAL	75	-	000000	0.0000	70	LAHA74
SKAEL, COASTAL AQUIFER	75	_	0.0000	0.0000	70	I AHA74
SRAEL, COASTAL AQUIFER	75	-	0.0000	0.0000	70	LAHA74
I IALT, PO RIVER	RIV	18	0.0000	0.0000	8	GA! AR1
IALY, ADIGE RIVER	RIV	18	0.0000	0.0000	. 0	GAL AB 1
LIALY, COASTAL ARCH M. OF TARANTO, TARA RIVER BASIM	S	s	0.0000	0.05000	•	POI FR3
KENTA, NAKURU NATIONAL PARK, LAKE NAKURU	ž	,-	00000	0.0000	£	GRE 178A
TAILJONG PIA	PAO	m	0.0000	0.00000	70	HF IF 83
	PAO	m	000000	0.0000	· •	PE1E83
PALATSIA, KRIAN DIST, PERAK STATE, JALAN BHARU SUMP	윤	m	0.0000	0.0000	70	MF1F83
MALAYSIA, KRIAN DIST, PERAK, PARIT TANJONG PIANDANG	CAR	m	0.0000	0.0000	70	PE IE83
PALATSIA, KKIAN DIST, PERAK STATE, SUNGET BURONG	3	m	0.0000	0.00000	•	METERS
KHOLESIA, LAKE MCILINAIME	LAK	_	0.0000	0.0000	•	GRF 17 AR
KEP. S. AFRICA, TRANSVAAL, HARTBEESPOORT DAN	ž		O TOO		1	

Table C-15. (Continued)

v*	Water	No. of	Reporte	Reported values (µg/L)		
Location	type	s amb Jes	Average	Hax Smun	Coments	Reference
REP. S. AFRICA, CAPE PROVINCE, VOELVLET DAM	1 1	-	00000	00000		
TURKEY SOMED SEVINAM DESTA	E E		00000	2000-0	=	ME!
7			270.0000	0.0000		CINARO
	8 8	M	30,0000	An mmn		CIMAGO
TURKEY, LONER SEYNAN DELTA	2	•	30000	00000	→ .	700017
SEYHAN		, "	00000	00000.002	u -	CIMAR
SETHAL	2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7 •	00000-020	0000-000	-	CIMABZ
		~	30.0000	940.00000	•	C114A82
USA, MILANIIL ULLAN	30	م	0.0000	0.0000	d, a	JOHA76
COA, MUKIN AILANIIC UCEAN	9CE	۵	0.0000	0.0000	6,0	JOHA76
USA, NORTH ATLANTIC OCEAN	30	۵	00000.0	0.0000	q, p	30RA76
	90E	۵	0.0000	0.0000	. 0	ATAMOT.
	300		00000*0	0,0000		JOHA 7 6
	30CE	_	0.0000	0.02020		JONE 35
USA, MORTH ATLAUTIC OCEAN	300	_	00000-0	0.0000) ; ;	104476
USA, MORTH ATLANTIC OCEAN	90E	,	0.0000	0.000	· ·	2000
USA, NEW YORK, OLCOTT, LAKE ONTARIO	1 AK		01700	9000	ĵ	JONA / P
USA, NEW YORK, ROCHESTER, LAKE DRITARIO	- 74	. 4	00000	0.0000		MALL 79
USA, MORTH ATLANTIC OCEAN	£ 2	-	0.000	0.0000	L	HALL 79
USA, MORTH ATLANTIC OCEAN	3 8		0.0000	0.0000	o t	JOHA76
ICA MOTU ATIANTE OCEAN	30	- ,	0.0000	0.0000	đ, p	JONA 76
CAFEMANA I AVE CATABLO	OCE	_	00000	0.0000	d , 0	JONA 7 6
Confirment that within	Ž	۵	0.0000	0.0000	L	WAL 79
USA, MEN TURK, USAEGU, LAKE ONTARIO	LAK	م	0.01380	0.0000		MAL 79
AN MUKIN AILANIIC (ICEAN	OCE	-	0.0000	0.0000	5	JOHN 26
	30	_	0.0000	0.0000	: c	JOHA JE
USA, MORTH ATLANTIC OCEAN	OCE.		00000	00000	•	OVEN O
USA, NORTH ATLANTIC OCEAN	שנ	٠ ~	2000	0.0000	a ,	30MA76
USA, MORTH ATLANTIC OCEAN	3 2		0.0000	0.0000	ф.	30HA76
USA. MORTH ATLANTIC OCFAN	3 8	- ,	0.0000	0.0000	d, a	JOHA76
	3		0.0000	0.0000	d, o	JONA76
TINGE STAN	ين	_		00000	•	,

Table C-15. (Continued)

	, te	1	Reported	Reported values (119/L)	_	
Location	type	samples	Average	Maximum	Coments	Reference
JSA, MORTH ATLANTIC OCEAN	330	-	00000.0	0.0000	d, a	J04A76
_	338		0.0000	0.0000	. E	30MA76
USA, NORTH ATLANTIC OCEAN	300		0.0000	0.0000	· •	JOHA76
USA, MORTH ATLANTIC OCEAN	300	_	0.0000	0.00000	d, b	JONA76
JMITED STATES	۰	_	0.0000	0.0000		JOHA76
USA, NORTH ATLANTIC OCEAN	300		0.0000	0.0000	, e	JONA76
USA, MORTH ATLANTIC OCEAN	300	_	0.0000	0.0000	d , 0	JOHA76
USA, MORTH ATLANTIC OCEAN	300	_	0.0000	0.0000	0,0	JOHA76
USA, NORTH ATLANTIC OCEAN	330		0.0000	0.0000	. o	JOHA76
USA, HORTH ATLANTIC OCEAN	300		0.0000	0.0000	.	30MA76
USA, MORTH ATLANTIC OCEAN	906	_	0.0000	0000000	d ,	JOHA76
USA, NORTH ATLANTIC OCEAN	300		0.0000	0.0000	d, p	JONA76
ATLANTIC	90CE	_	0.0000	000000	ф ,	JONA 7 6
SA, MORTH ATLANTIC OCEAN	90CE	_	0.0000	0000000	d.	JORA76
USA, NORTH ATLANTIC OCEAN	0CE	_	0.0000	0.0000	d , 0	JONA 76
USA, MORTH ATLANTIC OCEAN	300		0.0000	0.0000	d, D	30MA76
USA, MORTH ATLANTIC OCEAN	300	_	0.0000	0.0000	. 6	JONA76
USA, MORTH ATLANTIC OCEAN	300	_	0.0000	0.00000	, p	JONA 76
USA, MORTH ATLANTIC OCEAN	300	_	0.0000	0.0000	•	JOHA76
USA, MORTH ATLANTIC OCEAN	300	_	0.0000	0.0000	· •	JONA 76
USA. MORTH ATLANTIC OCEAN	الدو	_	00000	00000		JOHA76

Table C-15. (Continued)

·	Water	No. of	Reported	Reported values (µg/L)		
Location	type ³	samp les	Average	Haximum	Comments	Reference
USA, CALIFORNIA	35	22	0.0000	0.0000	9	MADOR?
VIRGIN ISLANDS, ST. THOMAS	C13	5	0.0000	00000		1 58032
VIRGIN ISLANDS, ST. JOHN	SID	7 7	0.0000	0.15000	.	LEN072
a Mater types: BRK = brackish; CAN = canal; CIS = cistern;	:		Statistics	tice:		
CRK = creek; DRN = drainage; GW = ground water; LAK = lake;	K = lake;		Number	of locations	Number of locations sampled: 136	
OCE = ocean; PAD = paddy; PND = pond; RES = reservoir;	oir;		Number	of samples w	Number of samples within detection limits:	limits: 25
RIV = river; RNF = runoff; SW = surface water; TAP = tap water;	- tap wat	er;	Mean o	f the highest	Mean of the highest reported values: 102.99434	5: 102.99434
WST = waste water.			Highes	Highest of the reported values:	rted values: 1	1060.0000
Uncertain.			Standa	Standard deviation: 280, 18708		
C Depth = 33 m.			Mean	Mean of the natural logarithms.		-2 15503
a Not detected.			Standa	rd deviation		
e Average detected <0.009 ppb.					loosrithme. A G	A 66278
* Detection limit< 1 ng/L.						0.730
9 Detection limit = 3 mg/L.						
Average detected < 0.10 ppb.						
Drainage No. 1.						
J Drainage Mo. 2.						
K Drainage No. 3.						
Orainage No. 4.						
Drainage No. 5.						
Depth = 0 m.						
O Depth = 50 m.						
D Depth = 500 m.						
9 Depth = 1000 m.						
T Average detected <0.5 ng/L.						
S Detection Nimit = 5.0 ppb.						

Table C-16. Monitoring data for p,p'-DDE in water.

				Reported values (µg/L)	(n&r)	
Location	Water	No. of	Average	Nov Series	Comments	900000
			,			verer ene
ANTARCTIC OCEAN	900	-	טטטט ע	O GOUGO	£	TAMAR?
	900		0-0000	0.000		TANAGO
ANTARCTIC GCEAN	300		0.0000	0.0000	<u>م</u> د	TAWAS
ANTARCTIC OCEAN	OCE		0.0000	0.0000	U	TANARO
ANTARCTIC OCEAN	90E	_	0.0000	0.0000	• •	TAMA82
ANTARCTIC OCEAN	306	_	0.0000	0.0000	79	TAWAS
ARGENTINA, PARANA RIVER, 600 KM ABOVE THE HOUTH	RIV	=	0.0000	0.0000	·	LENASA
CANADA, MAMILTON, LAKE ONTARIO	LAK	4 -	0.03740	0.0000	o	WALL 79
CANADA, TORONTO, LAKE ONTARIO	LAK	4	0.02050	0.0000	•	WAL79
CANADA/USA, MIAGARA RIVER	RIV		0.01390	0.0000		WALL 79
CANADA, CCLBURG, LAKE ONTARIO	LAK	-	0.04520	0.0000		WAL 79
INDOCHINA, SOUTH CHINA SEA	300	_	0.00001	0.0000		TANA82
	OC.E		0.00001	0.0000		TANA82
CORAL SEA	OCE.	_	0.00001	0.0000		TAW82
CORAL SEA	OCE.	_	0.0000	000000	70	TAMA82
CORAL SEA	300	_	0.0000	0.0000	•0	TAMASZ
EGYPT, EL-SALAAM	M 9	***	0.0000	000000	v	EL 2A83
EGYPT, EL-SALAAM	79		0.0000	0.0000	v	E1 2A83
EGYPT, EL-SALAAM	MS	_	0.0000	0.0000	•	EL 2A83
EGYPT, EL-SALAAM	1 9	_	0.0000	0.0000	·	EL 2A83
EGYPT, EL-SALAAH	75	_	0.0800	0.0000		E1.2A83
EGYPT, EL-SALAAM	N9		0.0000	0.0000	·	E1.2A83
EGYPT, EL-SALAM	75	_	0.0000	0.0000	v	EL 2A83
EGYPT, EL-SALAAM	N9		0.0000	0.0000	æ	E1.ZA83
EGYPT, EL-SALAAM	P	~	0.0000	0.0000	·	E1, 2A63
EGYPT, EL-SALAAM	MS	_	0.0000	0.0000	•	E1.2A83
EGYPT, EL-SALAAM	M 9	_	0.0000	0.0000	·	EL 2A83
EGYPT, EL-SALAAM	N9		0.0000	0.0000	•	ELZA83

Table C-16. (Continued)

	· ·	Mater	No. of	Repor	Reported values (119/L)	y(L)	
1, EL-SALAM 1, WANHOUDIEH CAMAL 1, A BEES 1, A	Location	t ype ^a	samples	Average	Haximum	Comments	Reference
THE WALLOUS CERWAY, LANGER FLEE RIVER RIVER RIVER RIVER RIVER RIVER REPUBLIC OF GERWAY, SCESTEL, MILIER STREET RIVER RIV							
1. VANE WILLIAM SWITTER TREATMENT PLANT SWITTER TO G.00000 G. 6.00000 G. 6.00		3		0.0000	0.0000	•	EL 2483
Figure F	EUTPI, LAKE MAKIUI	LAK	21	4.49000	0.0000		SAADRZ
1. AREA 1. A	EGYPT, MAHMOUDIEH CANAL	NS	,	0.65000	0.0000		FI 5279
1.0 1.0	EGYPT, EL-SOYOUF WATER TREATMENT PLANT	AS	_	0.47000	0.0000		61 55 19
REPUBLIC OF GERMANY, HAMBIRG, ELBE RIVER	EGYPT, MAHMOUDIEH	TAP	_	0.47000	0.0000	4.	EL 5579
REPUBLIC OF GERMANY, HAMBURG, ELBE RIVER RIY 12 0.00000 0.00000 REPUBLIC OF GERMANY, HAMBURG, ELBE RIVER RIY 13 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, BREWEN, MESER RIVER RIY 13 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, ACHINI, MESER RIVER RIY 11 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, ACHINI, MESER RIVER RIY 11 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, ACHINI, MESER RIVER RIY 11 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, MESEL, RHINE RIVER RIY 11 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, DICKERSITEIR, DANIDE RIVER RIY 11 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, DICKERSITEIR, DANIDE RIVER RIY 11 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, REINER, ENDSURG, MORDOSTSEEAMAL RIY 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RHEINE, ENS RIVER RIY 1 <t< td=""><td>EGYPT, ABEES</td><td>MST</td><td>-</td><td>0.95000</td><td>0.0000</td><td></td><td>61 5578</td></t<>	EGYPT, ABEES	MST	-	0.95000	0.0000		61 5578
REPUBLIC OF GERWANY, LAMENBURG, ELBE RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERWANY, DANIER RIVER RIV 15 0.00000 0.00000 0.00000 REPUBLIC OF GERWANY, DANIER RIVER RIV 11 0.00000 0.00000 0.00000 REPUBLIC OF GERWANY, ACALSHURE, RHINE RIVER RIV 11 0.00000 0.00000 0.00000 REPUBLIC OF GERWANY, ACALSHURE, RHINE RIVER RIV 11 0.00000 0.00000 0.00000 REPUBLIC OF GERWANY, ACALSHURE, RHINE RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERWANY, GESTRICH, RHINE RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERWANY, GESTRICH, RHINE RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERWANY, GESTRICH, DANUBE RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERWANY, RHEINE, RINSBURG, MORIOSTSEKAMAL RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERWANY, RHEINE, RINSBURG, RIVER RIV 1 0.000	REPUBLIC	RIY	21	00000	0.0000	•	168772
REPUBLIC OF GERMANY, BREWEN, WESER RIVER REPUBLIC OF GERMANY, ACHINI, WESER RIVER REPUBLIC OF GERMANY, ACHINI, WESER RIVER REPUBLIC OF GERMANY, ACHINI, WESER RIVER REPUBLIC OF GERMANY, ACKLASUME, RHINE RIVER REPUBLIC OF GERMANY, ST. GOMA, RHINE RIVER REPUBLIC OF GERMANY, OCSTRICH, RHINE RIVER REPUBLIC OF GERMANY, GETSINGEN, DANUBE RIVER REPUBLIC OF GERMANY, GETSINGEN, DANUBE RIVER REPUBLIC OF GERMANY, GETSINGEN, DANUBE RIVER REPUBLIC OF GERMANY, REINESBURG, MORDOSTSEEKAM, RIV II 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, REINESBURG, MURDOSTSEEKAM, RIV II 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, REINESBURG, RURR RIVER REPUBLIC OF GERMANY, REINESBURG, RURR RIVER REPUBLIC OF GERMANY, SIEGBURG, SIEG RIVER RIV II 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, REINESBURG, SIEG RIVER RIV II 0.00000 0.00000 REPUBLIC OF GERMANY, REINESBURG, SIEG RIVER RIV II 0.00000 0.00000 REPUBLIC OF GERMANY, RANUBLIN, MAIN RIVER REPUBLIC OF GERMANY, RAUMELIN, MAIN RIVER REPUBLIC OF GERMANY, RAUMENCO, MAIN RIVER REPUBLIC OF GERMANY, RAUMENCO, MAIN RIVER REPUBLIC OF GERMANY, RAUME	REPURA IC	RIV		0.0000	0.0000	•	166977
REPUBLIC OF GERMANY, ACHIM, WESER RIVER RIV 11 0.00000 0.00000 REPUBLIC OF GERMANY, ACHIM, WESER RIVER RIV 111 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, MALSHURE, RIVER RIV 11 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, MALSHURE, RIVER RIV 11 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, DIGALSTRICH, RHINE RIVER RIV 11 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, DIGALSTRAITER RIVER RIV 13 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, LUA, DANIBE RIVER RIV 13 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, LUA, DANIBE RIVER RIV 13 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, LICALSTADT, DANIBE RIVER RIV 13 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RENDSBURG, RIVER RIV 13 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RAINER RIV 13 0.00000 0.00000	REPUBLIC OF	N X	Š	0.0000	0.0000	•	16 1772
REPUBLIC OF GERMANY, DUSSELOORE, RHIME RIVER RIV 11 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, KAKLSRUKE, RHIME RIVER RIV 11 0.00000	REPUBLIC OF GERMANY,	RIV	, ,	0.000	00000	•	UCB 773
REPUBLIC OF GERMANY, KAKLSRUKE, RHINE RIVER REPUBLIC OF GERMANY, ST. GOAR, RHINE RIVER REPUBLIC OF GERMANY, ST. GOAR, RHINE RIVER REPUBLIC OF GERMANY, OCSTRICH, RHINE RIVER REPUBLIC OF GERMANY, OCSTRICH, RHINE RIVER REPUBLIC OF GERMANY, JOCHENSTEIN, DANUBE RIVER REPUBLIC OF GERMANY, JOCHENSTEIN, DANUBE RIVER REPUBLIC OF GERMANY, LIA, DANUBE RIVER REPUBLIC OF GERMANY, LIA, DANUBE RIVER REPUBLIC OF GERMANY, LIA, DANUBE RIVER REPUBLIC OF GERMANY, RHEINE, ENS RIVER REPUBLIC OF GERMANY, SIEGBURG, SIEG RIVER REPUBLIC OF GERMANY, SIEGBURG, SIEG RIVER REPUBLIC OF GERMANY, RHEINE, ENS RIVER REPUBLIC OF GERMANY, RHEINE, ENS RIVER REPUBLIC OF GERMANY, SIEGBURG, SIEG RIVER RIV I 0.00000 0.00000 REPUBLIC OF GERMANY, RHEINE, RIVER RIV I 0.00000 0.00000 REPUBLIC OF GERMANY, RAUBHER RIVER RIV I 0.00000 0.00000 REPUBLIC OF GERMANY, RAUBHER RIVER RIV I 0.00000 0.00000 REPUBLIC OF GERMANY, RAUBHER RIVER RIV I 0.00000 0.00000 REPUBLIC OF GERMANY, RAUBHER RIVER RIV I 0.00000 0.00000 REPUBLIC OF GERMANY, RAUBHERIM, MAIN RIVER RIV I 0.00000 0.00000 REPUBLIC OF GERMANY, RAUBHERIM, MAIN RIVER RIV I 0.00000 0.00000 REPUBLIC OF GERMANY, RAUBHERIM, MAIN RIVER RIV I 0.00000 0.00000 REPUBLIC OF GERMANY, RAUBHERIM, MAIN RIVER RIV I 0.00000 0.00000 REPUBLIC OF GERMANY, RAUBHERIM, MAIN RIVER RIV I 0.00000 0.00000 REPUBLIC OF GERMANY, RAUBHERIM, MAIN RIVER RIV I 0.00000 0.00000 REPUBLIC OF GERMANY, RAUBHERIM, MAIN RIVER RIV I 0.00000 0.00000 REPUBLIC OF GERMANY, RAUBHERIM, MAIN RIVER RIV I 0.00000 REPUBLIC OF GERMANY, RAUBHERIM, MAIN RIVER RIV I 0.00000 REPUBLIC OF GERMANY, RAUBHERIM, MAIN RIVER RIV I 0.00000 REPUBLIC OF GERMANY, RAUBHERIM, MAIN RIVER RIV I 0.00000 REPUBLIC OF GERMANY, RAUBHERIM, MAIN RIVER RIV I 0.00000 REPUBLIC OF GERMANY, RAUBHERIM, MAIN RIVER RIV I 0.00000 REPUBLIC OF GERMANY, RAUBHER RIVER RIV I 0.00000 REPUBLIC OF GERMANY, RAUBHER RIVER RIV I 0.00000 REPUBLIC OF GERMAN	REPUBLIC OF GERMANY, DUSSELDORF, RHIME R.	2	- =	00000	00000	י ע	MER41/2
REPUBLIC OF GERMANY, MESEL, RHINE RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, ST. GOAR, RHINE RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, ST. GOAR, RHINE RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, ULM, DANIBE RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, ULM, DANIBE RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, ULM, DANIBE RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, RENDSBURG, MORDOSTSEKAMAL RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, BRANSCHE, MITTELLANDKAMAL RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, BRISERG, RIWER RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, BRISERG, RIWER RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, BRISERG, RIWER RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, BRISERG, RIVER RIV 1 0.00000 0.00000 REPUBLIC OF	REPUBLIC OF GERMANY, KAKI SAUME, RHINE RIN	2	5	0.0000	0.01000	y	MCB773
REPUBLIC OF GERMANY, ST. GOMB, RHINE RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, OCSTRICH, RHINE RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, OCSTRICH, DANUBE RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, INGOLSTADT, DANUBE RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, REISIGEN, NORDOSTSEEKAMAL RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, REINE, EMS RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RRINE, EMS RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, FACHBACH, LAHN RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RAUMEIN, MAIN RIVER RIV 1 0.00000 0.00000	REPUBLIC OF GERMANY, WESEL, RHINE RIVER	RIV	-	0.000.0	0.000	•	2/7W3W
REPUBLIC OF GERMANY, DESTRICH, RHINE RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, JOCHENSTEIN, DANUBE RIVER RIV 15 0.00000 0.00000 REPUBLIC OF GERMANY, LLM, DANUBE RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, LLM, DANUBE RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, RENDSBURG, MORDOSISCEKANAL RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, RENDSBURG, MORDOSISCEKANAL RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, RENDSBURG, MORDOSISCEKANAL RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, RENDSBURG, MORDOSISCEKANAL RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, REINER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, FACHBACH, LAHN RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, ROBLENZ, MOSELLE RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RAUMERIA, MAIN RIVER RIV 1	REPUBLIC OF GERMANY, ST. GOAR, RHIME RIVE	RIV	,,, ,	0.0000	0.0000	• •	UC8772
REPUBLIC OF GERMANY, JOCHENSTEIN, DANUBE RIVER RIV 15 0.00000 0.00000 REPUBLIC OF GERMANY, ULM, DANUBE RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, GLISIMGEN, DANUBE RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RENDSBURG, MORDOSTSEFKANAL RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RENDSBURG, MORDOSTSEFKANAL RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, REINER, EMS RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, SIGGARMAY, RAUMAEIM, MIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, RAUMAEIM, MAIN RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RAUMAEIM, MAIN RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RAUMAEIM, MAIN RIVER RIV 1 0.00000	REPUBLIC OF GERMANY, OCSTRICH, RHING RIVE	RIV	_	00000	0.0000	•	14CB 777
REPUBLIC OF GERMANY, ULM, DANUBE RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, INGOLSTADT, DANUBE RIVER RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, RENDSBURG, WORDOSTSEKAMAL RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, REINER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, REINER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, SIGEBURG, SIGE RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, SIGEBURG, SIGE RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, SOBLENZ, MOSELLE RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RAUMKEIM, MAIN RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RAUMKEIM, MAIN RIVER RIV 1 0.00000 0.00000 e	REPUBLIC OF GERMANY, JOCHENSTEIN, DANUBE	RIV	15	0.0000	0.0000	•	uEe 772
REPUBLIC OF GERMANY, INGOLSTADT, DANUBE RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RENDSBURG, MORDOSTSCEKANAL RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RENDSBURG, MORDOSTSCEKANAL RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RHEIME, ENS RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, BASING, RUHR RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, SIEGBURG, SIEG RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, FACHBACH, LAHIN RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, KOBLENZ, MOSELLE RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RAUMEIM, MAINER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RAUMEIM, MAINER RIV 1 0.00000 0.00000 e	REPUBLIC OF GERMANY.	RIV		00000	0.0000	. •	LERT72
REPUBLIC OF GERMANY, BEADSBURG, NORDOSTSEKANAL RIV 1 0.00000 0.00000 REPUBLIC OF GERMANY, BRANSCHE, MITTELLANDKANAL RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, BRANSCHE, MITTELLANDKANAL RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, BRANSCHE, MITTELLANDKANAL RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, SIGGBURG, SIGG RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, SIGGBURG, SIGG RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RAUMKEIM, MAIN RIVER RIY 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RAUMKEIM, MAIN RIVER RIY 1 0.00000 0.00000 0.00000	REPUBLIC OF GERMANY, INGOLSTADT, DANUBE R	R		0.0000	0.0000	, •	UC 8 77 2
REPUBLIC OF GERMANY, RENDSBURG, NORDOSTSEEKANAL RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, BRANSCHE, MITTELLANDKANAL RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, BRIEDE, ENS RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, SIGGBURG, SIEG RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, FACHBACH, LAHN RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RAUMKEIM, MAIN RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RAUMKEIM, MAIN RIVER RIV 1 0.00000 0.00000 e	REPUBLIC OF GERMANY.	RIV	_	0.0000	00000	, 4	HER772
REPUBLIC OF GERMANY, BRANSCHE, MITTELLANDKANAL RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RHEINE, ENS RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, SIEGBURG, SIEG RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, FACHBACH, LAHN RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RAUMHEIM, MAIN RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, BAD BERNECK, MAIN RIVER RIV 1 0.00000 0.00000 e	KEPUBLIC OF SERMANY.	RIV	_	0.0000	0.0000	•	HFR772
REPUBLIC OF GERMANY, RHEIME, EMS RIVER REPUBLIC OF GERMANY, DUISBURG, RUHR RIVER REPUBLIC OF GERMANY, SIEGBURG, SIEG RIVER REPUBLIC OF GERMANY, FACHBACH, LAHN RIVER REPUBLIC OF GERMANY, FACHBACH, LAHN RIVER REPUBLIC OF GERMANY, RAUNWEIM, MAIN RIVER REPUBLIC OF GERMANY, RAUNWEIM, MAIN RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RAUNWEIM, MAIN RIVER RIV 1 0.00000 0.00000 e	REPUBLIC OF GERMANY.	RIV	_	0.0000	0.0000	•	HER272
REPUBLIC OF GERMANY, DUISBURG, RUHR RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, SIEGBURG, SIEG RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, KOBLENZ, MOSELLE RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RAUNKEIN, MAIN RIVER RIV 1 0.00000 0.00000 e	KEPUBLIC OF GERMANY,	RIV	_	0.0000	0.0000	•	HER772
REPUBLIC OF GERMANY, SIEGBURG, SIEG RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, FACHBACH, LAHN RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, ROBLENZ, MOSELLE RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RAUNWEIM, MAIN RIVER RIV 1 0.00000 0.00000 e	REPUBLIC OF GERMANY.	RIV	~	0.0000.0	0.0000	•	HER272
REPUBLIC OF GERMANY, FACHBACH, LAHN RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, KOBLENZ, MOSELLE RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, RAUMKIM, MAIN RIVER RIV 1 0.00000 0.00000 e	KEPUBLIC OF	RIV	,=	0.0000	0.0000	·	HER 272
REPUBLIC OF GERMANY, KOBLENZ, MOSELLE RIVER RIV 1 0.00000 0.00000 e REPUBLIC OF GERMANY, BAD BERNECK, MAIN RIVER RIV 1 0.00000 0.00000 e	REPUBLIC OF GERMANY, FACHBACH, LAHN RIVER	RIV	_	0.0000	0.0000	•	HER272
REPUBLIC OF GERMANY, RADMEIM, MAIN RIVER RIV 1 0.00000 0.00000 e	KEPUBLIC OF GERMANY, KOBLENZ, MOSELLE RIV	RIV	,	0.0000	0.0000	•	HFB772
KEPUBLIC OF GERMANY, BAD BERNECK, MAIN RIVER RIV 1 0.00000 0.00000 e	REPUBLIC OF GERMANY, RAUMIEIM, MAIN RIVER	RIV	,	0.0000	0.0000	•	HER272
	KEPUBLIC OF GERMANY, BAD BERNECK, MAIN RI	RIV		0.0000	0.0000	٠	HFR772

Table C-16. (Continued)

	Water	No. of	X X X X	Reported values (µg/L)	(1/6	
Location	type	samples	Average	Max imus	Coments	Reference
FED. REPUBLIC OF GERMANY, HEIDELBERG, MECKAR RIVER	RIV	_	000000.0	0.0000	•	HER272
FED. REPUBLIC OF GERMANY, LANGENARGEN, LAKE CONSTANCE	LAK	,	0.0000	0.0000	·	HER272
FED. REPUBLIC OF GERMANY, ERLANGEN, REGNITZ RIVER	RI V	-	0.0000	000000	·	HER272
FED. REPUBLIC OF GERMANY, HOF, SAALE RIVER	RIV	_	0.0000	0.00000	·	KER272
FED. REPUBLIC OF GERMANY, BERLIN-GATON, HAVEL RIVER	RIV	15	000000	000000	·	HERT72
F.R.G., BERLIN-LICHTERFELDE, TELTONKANAL	RIV	15	0.00000	0.08500		HER272
INDONESIA, JEPARA	8	2	0.0000	000000	æ	PURCHT 7
INDONESIA, JAKARTA, SAMMRAMG, SURABAYA	R IV	~	0.02000	0.04000		PURM77
INDONESIA, JAVA SEA	OCE	_	0.00001	0.0000		TAMB2
INDIA, SATHIAR RESERVOIR	RES	2	0.0000	0.0000	-	KAMI79
INDIA, SATHIAR RESERVOIR	RES	12	0.0000	0.00650		KAMK79
INDIA, SATHIAR RESERVOIR	RES	_	0.00600	0.0000		KAME79
INDIA, MYSORE DISTRICT		13	000000	2 100 .00000		RAJU82
INDIAN OCEAN, JAYA TRENCH	30	-	0.00001	0.0000		TAMAB2
INDIAN OCEAN, S. OF INDONESIA	OCE	_	000000	00000-0	U	TAIMB2
INDIAN OCEAN	OCE	-	0.0000	0.0000	ھ	TANARZ
INDIAN OCEAN, OFF W. AUSTRALIA	9CE	_	0.0000	0.0000	۵	TAKA82
INDIAN OCEAN, S. OF AUSTRALIA	90CE		0.0000	0.0000	70	TAMASZ
ISRAEL, JORDAN RIVER	RIV	13	0.0000	0.50000		PA276
ITALY, COASTAL ARCH W. OF TARANTO, TARA RIVER BASIN	S	'n	0.0000	0.03000		POLE83
JAPAN, TOKYO BAY	3CE	7	0.00068	0,00097		ALLAB3
JAPAN, RYUKU RETTO, N. PACIFIC OCEAN	OCE	_	0.00001	0.0000		TAMARZ
JAPAN, NAMPO, SHOTO/IZU TRENCH, N. PACIFIC OCEAN	OCE	_	0.0000	00000	۵	TAMB2
JAPAN, NAFFO, SHOTO, N. PACIFIC OCEAN	330	_	0.0000	0.0000	70	TAMARZ
KENYA, NAKURU NATIONAL PARK, LAKE NAKURU	LAK	-	0.0000	000000	•	GRE 172A
KENYA, NZOIA RIVER CATCHMENT	RIV	 	0.00000	0.0000	, ind	KAL177
KENYA, NZGIA RIYER CATCHNENT	RIV	13	0.0000	0.0000	-	KM 177

Table C-16. (Continued)

		1	4	Repor	Reported values (119/L)	<u>k</u>	
MG P TANDARS PAD 3 0,10000 0,00000 1. KOTA FIELD PAD 3 0,10000 0,00000 1. KOTA FIELD PAD 3 0,10000 0,00000 0.000 CAN 3 0,20000 0,00000 1. BURDING CAN 3 0,20000 0,00000 1. BURDING CAN 3 0,20000 0,00000 0. CE 1 0,00000 0,00000 0,00000 <	Location	type	serries	;	Max Sales	Comments	Reference
BURONG		PAD		00001 0	00000		ME 1682
BURRU SUMP PND 3 0.10000 0.00000		PAO	, es	0.10000	0.0000		ME IF 83
SHRONG CAN 3 0.2000 0.0000 C SHRONG CAN 3 0.3000 0.0000 C OCE 1 0.0000 0.0000 C OCE 1 0.0000 0.0000 D SEA OCE 1 0.0000 0.0000 D OCE 1 0.00	MALAYSIA, KRIAN DIST, PERAK STATE, JALAN BHARU SUMP	PNO	m	0.10000	0.0000		FE1E83
1 BURONS CAN 3 0.30000 0.00000 C COCC 1 0.00000 0.00000 C COCC 1 0.00000 0.00000 C CCC 1 0.00000 0.00000 C CCC 1 0.00000 0.00000 D CCC 1 0.00000 0.00000 C CCC 1 0.00000 0.00000 C CCC 1 0.00000 D CCC 1 0.00000 D CCC 1 0.00000 D CCC 1 0.00000 C CCC 1 0.00000 C CCC 1 0.00000 C CCC 1 0.00000 C CCC 1 0.00000 D CCC 1 0.00000 C CC	MALAYSIA, KRIAN DIST, PERAK, PARIT, TANDGE PIANDAKS	CAN	m	0.2000	00000		MF1F83
DAM	MALAYSIA, KRIAN DIST, PERAK STATE, SUNGET BURONG	2	m	0.30000	0.0000		K IE83
0CE 1 0.00000 0.00000 d 0CE 1 0.00000 0.00000 b 0CE 1 0.00000 0.00000 b 1LAK 1 0.00000 0.00000 b DAM LAK 1 0.10000 0.00000 j DAM LAK 1 0.00000 0.00000 j SEA 0CE 1 0.00000 0.00000 j SEA <td< td=""><td>PACIFIC OCEAM, MELANESIA</td><td>55</td><td>-</td><td>0.0000</td><td>0.0000</td><td>U</td><td>TANAR</td></td<>	PACIFIC OCEAM, MELANESIA	55	 -	0.0000	0.0000	U	TANAR
DAM LAK 1 0.00000 0.00000 b DCE 1 0.00000 0.00000 b DAM LAK 1 0.00000 0.00000 b DAM LAK 1 0.10000 0.00000 j DAM LAK 1 0.10000 0.00000 j SEA DCE 1 0.00520 0.00000 j SEA DCE 1 0.00000 j j DRN 2 10.00000 j j LAK 1 <td>N. PACIFIC OCEAN, EAST CAROLINE BASIN</td> <td>OCE</td> <td>-</td> <td>0.0000</td> <td>0.00000</td> <td>•</td> <td>TAMAR</td>	N. PACIFIC OCEAN, EAST CAROLINE BASIN	OCE	-	0.0000	0.00000	•	TAMAR
DAM LAK 1 0.00000 0.00000 b DAM LAK 1 0.10000 0.00000 b DAM LAK 1 0.10000 0.00000 j DAM LAK 1 0.10000 0.00000 j SEA 0CE 1 0.00000 0.00000 m SEA 0CE 1 0.00110 0.00000 m SEA 0CE 1 0.00000 m 0.00000 m SEA 0CE 1 0.00000 0.00000 m m SEA 0CE 1 0.00000 0.00000 0.00000 <td>N. PACIFIC OCEAM, MARIANA TRENCH</td> <td>30</td> <td></td> <td>0.00000</td> <td>0.0000</td> <td>٩</td> <td>TARAGO</td>	N. PACIFIC OCEAM, MARIANA TRENCH	30		0.00000	0.0000	٩	TARAGO
DAM LAK 1 0.00000 0.00000 0.00000 DAM LAK 1 0.10000 0.00000 1 DAM LAK 1 0.0000 0.00000 1 SEA 0CE 1 0.0000 0.0000 1 SEA 0CE 1 0.0000 0.0000 0.0000 SEA 0CE 1	N. PACIFIC OCEAM, AGRIHAM ISLAND	30 6 6		0.0000	0.0000		TABLAS
LAK 1 0.10000 0.00000 1 DAM LAK 1 0.10000 0.00000 1 SEA 0CE 1 0.00520 0.00000 1 SEA 0CE 1 0.00570 0.00000 1 SEA 0CE 1 0.00080 0.00000 1 SEA 0CE 1 0.00080 0.00000 1 SEA 0CE 1 0.00050 0.00000 1 SEA 0CE 1 0.00050 0.00000 1 SEA 0CE 1 0.00050 0.00000 1 SEA 0CE 1 0.00000 0.00000 0.00000 1 SEA 0CE 1 0.00000 0.00000 0.00000 1 SEA 0CE 1 0.000000	N. PACIFIC OCEAN	oce	_	0.0000	0.0000	· 4	TANKAP
DAM LAK 1 0.10000 0.50000 j DAM LAK 1 0.00000 0.50000 j SEA OCE 1 0.00520 0.00000 j SEA OCE 1 0.00770 0.00000 m SEA OCE 1 0.0070 m m SEA OCE 1 0.0090 m m SEA OCE 1 0.0000 0.0000 m SEA OCE 1 0.0000 0.0000 m OCE 1 0.0000 0.0000 0.0000 m	RHODESIA, LAKE MCILNAINE	LAK	,	0.10000	00000	•	GBE 1788
DAM LAK 1 0.00000 0.00000 1 SEA OCE 1 0.00520 0.00000 1 SEA OCE 1 0.00520 0.00000 1 SEA OCE 1 0.00270 0.00000 II SEA OCE 1 0.00110 0.00000 II SEA OCE 1 0.00110 0.00000 II SEA OCE 1 0.00050 0.00000 II SEA OCE 1 0.00000 0.00000 II SEA OCE 1 0.00000 0.00000 II OCE 1 0.00000 0.00000 II OCE 1 0.00000 0.00000 II	REP. S. AFRICA, TRANSVAAL, HARTBEESPOONT DAM	LAK	_	0.10000	0.0000		CE 177
SEA OCE 1 0.00520 0.00000 1 SEA OCE 1 0.0030 1 SEA OCE 1 0.0000 0.0000 OCE 1 0.0000 0.0000 0.0000 OCE 1 0.0000 0.0000 0.0000 OCE 1 0.0000 0.0000 0.0000 CLAK 1 0.0000 0.0000 0.0000 <td>REP. S. AFRICA, CAPE PROVINCE, VOELVLEI DAM</td> <td>LAK</td> <td>_</td> <td>0.0000</td> <td>00000-0</td> <td></td> <td>12 To 12 To</td>	REP. S. AFRICA, CAPE PROVINCE, VOELVLEI DAM	LAK	_	0.0000	00000-0		12 To
SEA OCE 1 0.00150 0.00000 m SEA OCE 1 0.00270 0.00000 m SEA OCE 1 0.00000 m 0.00000 m SEA OCE 1 0.00050 0.00000 m 0.00000 m SEA OCE 1 0.00060 0.00000 m 0.00000 m SEA OCE 1 0.00060 0.00000 m 0.00000 m SEA OCE 1 0.00000 0.00000 m 0.00000 m SEA OCE 1 0.00000 0.00000 c 0.00000 c SEA OCE 1 0.00000 0.00000 c 0.00000 c SEA OCE 1 0.00000 0.00000 c c PRN 2 10.00000 0.00000 0.00000 c c LAK 1 0.00000	SUUTH OF SWEDEN, HAND BIGHT AREA, BALTIC SEA	30	-	0.00520	0.0000		UZIE11
SEA OCE 1 0.00270 0.00300 III SEA OCE 1 0.00110 0.00000 III SEA OCE 1 0.00110 0.00000 III SEA OCE 1 0.00000 III III SEA OCE 1 0.00000 III III SEA OCE 1 0.00000 III IIII IIII IIIII IIIII IIIIII IIIIII IIIIIIIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	SOUTH OF SHEDEN, HAND BIGHT AREA, BALTIC SEA	9CE		0.00160	0.0000		0STE77
SEA OCE 1 0,00080 0,00000 m SEA OCE 1 0,00110 0,00000 m SEA OCE 1 0,00000 m DRN 2 10,00000 0,00000 m V LAK 1 0,00000 0,00000 m	UF SWEDEN, HAND BIGHT AREA, BALTIC	33	-	0.30270	0.0000	=	057£77
SEA OCE 1 0.00110 0.00000 n SEA OCE 1 0.00050 0.00000 n SEA OCE 1 0.00050 0.00000 n SEA OCE 1 0.00000 n 0.00000 n SEA OCE 1 0.00000 0.00000 n n SEA OCE 1 0.00000 0.00000 c n SEA OCE 1 0.00000 0.00000 p n A LAK 1 0.00000 0.00000 p n LAK 1 0.00000 0.00000 p n n LAK 1 0.00000 0.0	OF SHEDEN, HAND BIGHT AREA, BALTIC	36		0,00080	0.0000	æ	0STE77
SEA OCE 1 0.00050 n SEA OCE 1 0.0006C 0.00000 n SEA OCE 1 0.00050 0.00000 n SEA OCE 1 0.00000 n n SEA OCE 1 0.00000 n n OCE 1 0.00000 0.00000 c c DRN 2 10.00000 79.00000 p Y LAK 1 0.00000 e LAK 1 0.00000 0.00000 e URY LAK 1 1.80000 0.00000 e	SHEDEN, HAND BIGHT AREA,	96	_	0.0010	0.0000	•	0STF77
SEA OCE 1 0.0006C 0.0000 n SEA OCE 1 0.0000 n 0.0000 n SEA OCE 1 0.0000 n 0.0000 n OCE 1 0.0000 70.0000 c 0 DRN 2 10.0000 70.0000 p PRN 2 6.00.0000 0.0000 p Y LAK 1 0.0000 e e LAK 1 0.0000 0.0000 e e URY LAK 1 1.8000 0.0000 e	SHEDEN, HAND BIGHT	30	***	050000	0.0000	Œ	OSTE77
SEA OCE 1 0.0000 n SEA OCE 1 0.0005 0.0000 n OCE 1 0.0000 79.0000 c DRN 2 10.0000 79.0000 p PRN 2 609.0000 0.0000 p Y LAK 1 0.0000 0.0000 e LAK 1 0.0000 0.0000 e LAK 1 1.8000 0.0000 e	SHEDEN, HAND BIGHT	30		0.0000	0.0000	c	051677
SEA OCE 1 0.00050 0.00000 n OCE 1 0.00009 0.00000 c DRN 2 10.00000 79.0000 p Y LAK 1 0.0000 e LAK 1 0.0000 e e LAK 1 0.0000 e e URY LAK 1 1.8000 0.0000 e	SOUTH OF SWEDEN, HAND BIGHT AREA, BALTIC SEA	900	-	0.0000	0.0000		OSTE77
OCE 1 0.00000 c DRN 2 10.00000 79.00000 c Y LAK 1 0.00000 0.00000 e LAK 1 0.00000 0.00000 e LAK 1 0.00000 0.00000 e LAK 1 1.00000 0.00000 e	BIGHT AREA, BALTIC	9CE	_	0.00050	0.0000	£	051677
DRN 2 10,00000 79,00000 0 Y LAK 1 0,0000 0,0000 e IAK 1 0,0000 0,0000 e LAK 1 0,0000 e e URY 1 1,8000 0,0000 e	AND MANAGEMENT OF THE PROPERTY	OCE	,	60000 0	0.0000	U	TAMAS
Y LAK 1 0.0000 0.0000 p LAK 1 0.0000 0.0000 e LAK 1 0.0000 0.0000 e LAK 1 1.0000 0.0000 e	UNKEY, LOWER SETHAN DELTA	OEN	~	10.0000	79.0000	0	CTHARD
Y LAK 1 0.00000 0.00000 e LAK 1 0.0000 0.00000 e LAK 1 0.0000 0.00000 e URY LAK 1 1.80000 0.00000	TURKEY, LOWER SEYHAN DELTA	ORN	2	00000 009	0.0000	_	CIMAS
LAK 1 0.0000 0.0000 e LAK 1 0.0000 0.0000 e URY LAK 1 1.8000 0.0000	UGARDA, OKOKORIO LAKE, KYOGA OR SALISBURY	LAK	-	0.0000	0.0000	. •	SSERVA
LAK 1 0.0000 0.00000 e	UGANDA, KAGMARA LAKE, KYOGA OR SALISBURY	Ľ	_	0.0000	0.00000	•	SSER74
LAK 1 1.80000 0.00000	USARLA, BUSUNDU LAKE, KTOGA OR SALISBURY	Ę	_	0.0000	0.0000	a	7/155
	UGARUA, MAMSAGAL! LAKE, KYOGA OR SALISBURY	Ľ¥		1.80000	0.0000		SSER74

Table C-16. (Continued)

				Repor	Reported values (119/L)	(7 /	
MORTH ATLANTIC OCEAN OCE	Location	Water type ^a	No. of samples		Haxinee	Coments	Reference
NORTH ATLANTIC OCEAN NORTH ATLANT ATLANT ATLANT ATLANT ATLANT ATLANT ATL	HE ATT AUTE OCCUM	300					
COUNTY ATLANTIC OCEAN COCEAN COCOCOACOACOACOACOACOACOACOACOACOACOACOA	MILANIIC OCEAN	UCE	-	000000	ocean o	7	
ORTH ATLANTIC OCEAN	MUKIH ATLANTIC	300	-	0.0000	0.0000	L	JONA 76
ORTH ATLANTIC OCEAN OCE f 0.00000 ORTH ATLANTIC OCEAN OCE 1 0.00390 ORTH ATLANTIC OCEAN OCE 1 0.0000 ORTH ATLANTIC OCEAN OCE 1 0.0000 ORTH ATLANTIC OCEAN UAK f 0.02260 CRTH ATLANTIC OCEAN OCE 1 0.0000 ORTH ATLANTIC OCEAN OCE 1 0.00120 ORTH ATLANTIC OCEAN OCE 1 0.00120 ORTH ATLANTIC OCEAN OCE 1 0.00120 ORTH ATLANTIC OCEAN OCE 1 0.00120 <td>NORTH ATLANTIC</td> <td>90E</td> <td>4-</td> <td>00000</td> <td>0.0000</td> <td>•</td> <td>JONA 76</td>	NORTH ATLANTIC	90E	4-	00000	0.0000	•	JONA 76
RORTH ATLANTIC OCEAN OCE 1 0.00390 CORTH ATLANTIC OCEAN OCE 1 0.00000 ORRHA ATLANTIC OCEAN OCE 1 0.00000 ORRHA ATLANTIC OCEAN LAK F 0.02680 EW YORK, OLCOTT, LAKE ONTARIO LAK F 0.0290 ORTH ATLANTIC OCEAN OCE 1 0.0000 ORTH ATLANTIC OCEAN OCE 1 0.0020 ORTH ATLANTIC OCEAN OCE 1 0.0020 ORTH ATLANTIC OCEAN OCE 1 0.0020 ORTH ATLANTIC OCEAN OCE 1 0.0030 ORTH ATLANTIC OCEAN OCE 1 0.0030 ORTH ATLANTIC OCEAN OCE 1 0.0033 ORTH ATLANTIC OCEAN OCE 1 0.0033 ORTH ATLANTIC OCEAN OCE 1 0.00330<	NORTH ATLANTIC	30	4.	0.0000	0.0000	ىد	JOHA76
CORTH ATLANTIC OCEAN OCE 1 0.00000 CORTH ATLANTIC OCEAN OCE 1 0.0000 CORTH ATLANTIC OCEAN COE 1 0.0000 CORTH ATLANTIC OCEAN LAK f 0.02590 CEM YORK, ROCHESTER, LAKE ONTARIO LAK f 0.02990 CEM YORK, ROCHESTER, LAKE ONTARIO LAK f 0.02990 CORTH ATLANTIC OCEAN OCE 1 0.0000 ORTH ATLANTIC OCEAN OCE 1 <td>MORTH</td> <td>90£</td> <td>_</td> <td>0.00390</td> <td>0.0000</td> <td>u</td> <td>30MA76</td>	MORTH	90£	_	0.00390	0.0000	u	30MA76
ORTH ATLANTIC OCEAN OCE 1 0.00000 ORTH ATLANTIC OCEAN OCE 1 0.00000 EW YORK, OLCOTT, LAKE OMTARIO LAK f 0.02690 EW YORK, ROCHESTER, LAKE OMTARIO LAK f 0.02990 ORTH ATLANTIC OCEAN OCE 1 0.0000 ORTH ATLANTIC OCEAN OCE 1 0.0000 ORTH ATLANTIC OCEAN LAK f 0.00940 ORTH ATLANTIC OCEAN OCE 1 0.0000 ORTH ATLANTIC OCEAN OCE 1 0.00940 ORTH ATLANTIC OCEAN OCE 1 0.0000 ORTH ATLANTIC OCEAN OCE 1 <	MORTH ATLANTIC	90E	_	0.0000	0.0000	· L	JOHA75
CEM TALANTIC OCEAN OCE 1 0.00000 EW YORK, OLCOTT, LAKE ONTARIO LAK f 0.02900 EW YORK, ROCHESTER, LAKE ONTARIO CE 1 0.02900 NORTH ATLANTIC OCEAN OCE 1 0.00000 NORTH ATLANTIC OCEAN OCE 1 0.00030 NORTH ATLANTIC OCEAN OCE 1 0.0030 NORTH ATLANTIC OCEAN OCE 1 0.00330 NORTH ATLANTIC OCEAN OCE	_	90E		000000	0.0000	·	30M76
EN YORK, OLCOTT, LAKE ONTARIO LAK f 0.02560 EW YORK, ROCHESTER, LAKE ONTARIO LAK f 0.0290 NORTH ATLANTIC OCEAN OCE 1 0.0000 NORTH ATLANTIC OCEAN OCE 1 0.0000 NORTH ATLANTIC OCEAN LAK f 0.00240 NORTH ATLANTIC OCEAN OCE 1 0.0060 NORTH ATLANTIC OCEAN OCE 1 0.0060 NORTH ATLANTIC OCEAN OCE 1 0.0000 NORTH ATLANTIC OCEAN OCE 1 0.00430 NORTH ATLANTIC OCEAN OCE 1 0.00430 NORTH ATLANTIC OCEAN OCE 1 0.00430 NORTH ATLANTIC OCEAN OCE 1 0.00330 NORTH ATLANTIC OCEAN OCE 1 0.01540 NORTH ATLANTIC OCEAN OCE <		300		0.0000	0.0000	فد	20MA76
CEM YORK, ROCHESTER, LAKE ONTARIO LAK f 0.02990 FORTH ATLANTIC OCEAN OCE 1 0.00000 FORTH ATLANTIC OCEAN OCE 1 0.00000 FORTH ATLANTIC OCEAN LAK f 0.0000 FORTH ATLANTIC OCEAN OCE 1 0.00940 FORTH ATLANTIC OCEAN OCE 1 0.0050 FORTH ATLANTIC OCEAN OCE 1 0.0033 FORTH ATLANTIC OCEAN OCE 1 0.0033 FORTH ATLANTIC OCEAN OCE 1 0.0033 FORTH ATLANTIC OCEAN OCE 1	-	LAK	-	0.02680	000000		MALL 79
ORTH ATLANTIC OCEAN OCE 1 0,00000 ORTH ATLANTIC OCEAN OCE 1 0,00000 IORTH ATLANTIC OCEAN OCE 1 0,00000 IMADA, LAKE ONTARIO LAK f 0,00040 EW YORK, OSMEGO, LAKE ONTARIO LAK f 0,00940 EW YORK, OSMEGO, LAKE ONTARIO LAK f 0,00940 EW YORK, OSMEGO, LAKE ONTARIO OCE 1 0,00940 ORTH ATLANTIC OCEAN OCE 1 0,00940 ORTH ATLANTIC OCEAN OCE 1 0,00430 ORTH ATLANTIC OCEAN OCE <t< td=""><td></td><td>LAK</td><td>4-</td><td>0.05990</td><td>0.0000</td><td></td><td>WALL 79</td></t<>		LAK	4 -	0.05990	0.0000		WALL 79
ORTH ATLANTIC OCEAN OCE 1 0.00000 ORTH ATLANTIC OCEAN OCE 1 0.00000 UMADA, LAKE ONTARIO LAK f 0.00940 EW YORK, OSMEGO, LAKE ONTARIO LAK f 0.00940 EW YORK, OSMEGO, LAKE ONTARIO OCE 1 0.00940 ORTH ATLANTIC OCEAN OCE 1 0.00600 ORTH ATLANTIC OCEAN OCE 1 0.00230 ORTH ATLANTIC OCEAN OCE 1 0.00750 ORTH ATLANTIC OCEAN OCE 1 0.00430 ORTH ATLANTIC OCEAN OCE 1 0.00430 ORTH ATLANTIC OCEAN OCE 1 0.00330 ORTH ATLANTIC OCEAN OCE 1	USA, WORTH ATLANTIC OCEAN	OCE	-	0,00000	000000	-	JOHA76
CRTH ATLANTIC OCEAN OCE 1 0.00000 UMADA, LAKE ONTARIO LAK f 0.00240 EW YORK, OSMEGO, LAKE ONTARIO LAK f 0.02240 GORTH ATLANTIC OCEAN OCE 1 0.00600 GORTH ATLANTIC OCEAN OCE 1 0.00230 GORTH ATLANTIC OCEAN OCE 1 0.00750 GORTH ATLANTIC OCEAN OCE 1 0.00750 GORTH ATLANTIC OCEAN OCE 1 0.00430 GORTH ATLANTIC OCEAN OCE 1 0.00430 WORTH ATLANTIC OCEAN OCE 1 0.00430 WORTH ATLANTIC OCEAN OCE 1 0.00330 OCE 1 0.00330	USA, MORTH ATLANTIC OCEAN	OCE	_	0.0000	0.0000	•	J08A76
EM F G.00940 EW YORK, OSMEGO, LAKE ONTARIO LAK F G.00240 ICNTH ATLANTIC OCEAN OCE I G.00600 IORTH ATLANTIC OCEAN OCE I G.00230 IORTH ATLANTIC OCEAN OCE I G.00030 IORTH ATLANTIC OCEAN OCE I G.00030 IORTH ATLANTIC OCEAN OCE I G.00750 IORTH ATLANTIC OCEAN OCE I G.00430 WORTH ATLANTIC OCEAN OCE I G.00430 WORTH ATLANTIC OCEAN OCE I G.00330 WORTH ATLANTIC OCEAN OCE I G.00430 WORTH ATLANTIC OCEAN OCE I G.00330 STATES I G.00490	USA, NORTH ATLANTIC OCEAN	300	_	0.0000	000000	•	30MA76
EW YORK, OSMEGO, LAKE ONTARIO LAK f 0.02240 HORTH ATLANTIC OCEAN OCE 1 0.00600 HORTH ATLANTIC OCEAN OCE 1 0.00230 HORTH ATLANTIC OCEAN OCE 1 0.00230 HORTH ATLANTIC OCEAN OCE 1 0.00750 HORTH ATLANTIC OCEAN OCE 1 0.00430 HORTH ATLANTIC OCEAN OCE 1 0.00430 HORTH ATLANTIC OCEAN OCE 1 0.00330 HORTH ATLANTIC OCEAN OCE 1 0.00330 HORTH ATLANTIC OCEAN OCE 1 0.01330 HORTH ATLANTIC OCEAN OCE 1 0.01540 HORTH ATLANTIC OCEAN OCE 1 </td <td>USA/CANADA, LAKE ONTARIO</td> <td>Ę</td> <td>4</td> <td>0.00940</td> <td>0.0000</td> <td></td> <td>MAL 79</td>	USA/CANADA, LAKE ONTARIO	Ę	4	0.00940	0.0000		MAL 79
MORTH ATLANTIC OCEAN OCE 1 0.00600 MORTH ATLANTIC OCEAN OCE 1 0.00230 MORTH ATLANTIC OCEAN OCE 1 0.00230 MORTH ATLANTIC OCEAN OCE 1 0.00750 MORTH ATLANTIC OCEAN OCE 1 0.00750 MORTH ATLANTIC OCEAN OCE 1 0.00430 MORTH ATLANTIC OCEAN OCE 1 0.00330 MORTH ATLANTIC OCEAN 0.00490 0.00490	USA, NEW YORK, OSNEGO, LAKE ONTARIO	LAK	4.	0.02240	0.0000		MALL 79
MORTH ATLANTIC OCEAN OCE 1 0.70000 MORTH ATLANTIC OCEAN OCE 1 0.00230 MORTH ATLANTIC OCEAN OCE 1 0.00050 MORTH ATLANTIC OCEAN OCE 1 0.00750 MORTH ATLANTIC OCEAN OCE 1 0.00430 MORTH ATLANTIC OCEAN OCE 1 0.00510 MORTH ATLANTIC OCEAN OCE 1 0.00330	USA, NORTH ATLANTIC OCEAN	300		0.00600	0.0000	•	JOHA76
NORTH ATLANTIC OCEAN OCE 1 0.00230 NORTH ATLANTIC OCEAN OCE 1 0.00000 NORTH ATLANTIC OCEAN OCE 1 0.00750 NORTH ATLANTIC OCEAN OCE 1 0.00430 NORTH ATLANTIC OCEAN OCE 1 0.00330 NORTH ATLANTIC OCEAN OCE 1 0.00330 NORTH ATLANTIC OCEAN OCE 1 0.01540 NORTH ATLANTIC OCEAN OCE 1 0.01540 ED STATES f 1 0.01540		300	خسر	0.70000	0.0000	· b .	JOHA76
NORTH ATLANTIC OCEAN OCE 1 0.00000 NORTH ATLANTIC OCEAN OCE 1 0.00750 NORTH ATLANTIC OCEAN OCE 1 0.00430 NORTH ATLANTIC OCEAN OCE 1 0.00510 NORTH ATLANTIC OCEAN OCE 1 0.00330 NORTH ATLANTIC OCEAN OCE 1 0.01540 NORTH ATLANTIC OCEAN CCE 1 0.01540 ED STATES f 1 0.01540	MORTH ATLANTIC	30	-	0.00230	0.0000	•	J08676
MORTH ATLANTIC OCEAN OCE 1 0.00750 MORTH ATLANTIC OCEAN OCE 1 0.00430 MORTH ATLANTIC OCEAN OCE 1 0.00510 MORTH ATLANTIC OCEAN OCE 1 0.00120 MORTH ATLANTIC OCEAN OCE 1 0.01330 MORTH ATLANTIC OCEAN OCE 1 0.01630 MORTH ATLANTIC OCEAN CCE 1 0.01540 D STATES f 1 0.00490	MORTH ATLANTIC	300 0CE	_	0.0000	0.0000	e, t	JOHA76
NORTH ATLANTIC OCEAN OCE 1 0.00430 NORTH ATLANTIC OCEAN OCE 1 0.00510 NORTH ATLANTIC OCEAN OCE 1 0.00120 NORTH ATLANTIC OCEAN OCE 1 0.00330 NORTH ATLANTIC OCEAN OCE 1 0.01540 NORTH ATLANTIC OCEAN CCE 1 0.01540 D STATES f 1 0.00490	HORTH ATLANTIC	30		0.00750	0.0000	•	JOHA76
MORTH ATLANTIC OCEAN OCE 1 0.00510 NORTH ATLANTIC OCEAN OCE 1 0.00120 MORTH ATLANTIC OCEAN OCE 1 0.00330 NORTH ATLANTIC OCEAN OCE 1 0.01540 MORTH ATLANTIC OCEAN CCE 1 0.01540 D STATES f 1 0.00490	NORTH ATLANTIC	OCE	-	0.00430	00000-0	· L	JOHN 76
NORTH ATLANTIC OCEAN OCE 1 0.00120 NORTH ATLANTIC OCEAN OCE 1 0.00330 NORTH ATLANTIC OCEAN OCE 1 0.01540 D STATES f 1 0.01540	MORTH ATLANTIC	300	,	0.00510	0.0000	v	308A76
NORTH ATLANTIC OCEAN OCE 1 0.00330 NORTH ATLANTIC OCEAN OCE 1 0.01030 NORTH ATLANTIC OCEAN CCE 1 0.01540 D STATES f 1 0.00490	NORTH ATLANTIC	30 0CE	-	07100-0	00000°0	دد	JOHA76
NORTH ATLANTIC OCEAN 0CE 1 0.01030 NORTH ATLANTIC OCEAN 0.01540 D STATES f 1 0.00490	NORTH ATLANTIC	OCE		0.00330	0.0000	9	JOHA76
OCEAN	NORTH ATLANTIC	OCE	-	0.01030	000000	L	JOHA76
f 1 0,00490		ઝ	_	0.01540	0.0000	v	JONA76
	UNITED STATES	~	_	0.00490	00000	فيد	JOHA76

Table C-16. (Continued)

	Kater	No. of	Repor	Reported values (119/L)	g/L)	
Location	type ^a	samples	Average	Max inum	Coments	Reference
JSA, NORTH ATLANTIC OCEAN	300		0.0000	00000-0	# .0	30876
USA, NORTH ATLANTIC OCEAN	300		0.0000	0.0000		JOHA76
NORTH ATLANTIC	OCE	run	0,000.0	000000	,	308476
USA, NORTH ATLANTIC OCEAN	OCE		0.00710	0.0000	ليد ا	JOHA76
A. MORTH ATLANTIC OCEAN	326	***	0.00410	0.0000	-	308A76
USA, NORTH ATLANTIC OCEAN	OCE		0.00070	0.0000	· •	JOHA 76
USA, NORTH ATLANTIC OCEAN	OCE		0.00020	00000-0		JOHA76
A, NORTH ATLANTIC OCEAN	300	pate	0.00080	0.0000		JOHA76
USA, NORTH ATLANTIC OCEAN	300	æ	0.00070	0-00000	. cy	JOHA76
HORTH ATLANTIC		_	0.00210	0.0000		JOHA76
JSA, NORTH ATLANTIC OCEAN	300	-	0.00230	00000-0	. •	JOHA76
NORTH ATLANTIC	300		0.00220	0.0000	نيو ،	JOHA 76
USA, MORTH ATLANTIC OCEAN	300	_	0.00140	00000-0	. 6	JOHA 76
USA, NORTH ATLANTIC OCEAN	300		0.00100	0.0000	r s.	JOHN 76
USA, MORTH ATLANTIC OCEAN	300		0.00250	00000		30MA76
A, MORTH ATLANTIC OCEAN	OCE		0,00150	0.0000	•	MAZA TA
USA, MISSISSIPPI VALLEY NATERSHED	RMF	9	0.2000	0.5000	•	WILLB3
USA, CALIFORNIA	75	22				44.000

Table C-16. (Continued)

	Water	No. of	Repor	Reported values (119/L)	9(1)	
Location	type	samples	Average	Max fema	Coments	Reference
VIRGIN ISLANDS, ST. THOMS	CIS	15	0.0000	0.0000	•	LEM072
VIRGIN ISLANDS, ST. JOHN	SID	=	00000°0.	0.02000		1.EM072
* Water types: BRK = brackish: CAN = canal: CIS = cistern:						
CRK = creek; DRN = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir;	K = lake; roir:		Number of 1	Statistics: Number of locations sampled: 159 Number of camples within detection	Statistics: Number of locations sampled: 159 Number of camples within detection limits: 76	%
RIV = river; RNF = runoff; SW = surface water; TAP = tap water; WST = waste water	= tap wa	ter;	Hean of the	highest repor	Mean of the highest reported values: 36.60689	68909
b Average detected <0.001 ng/L.	••		Standard deviation:	nighest of the reported values: Standard deviation: 240 61621	ted values: 2500.00000 240 61621	8
C Average detected <0.003 ng/L.			Mean of the	Mean of the natural logarithms:	ithms: -4.56027	
Average detected <0.002 ng/L.			Standard de	Standard deviation of the natural	=	
f Uncertain.			logar 1 tha	logar 1 thms: 3.69180		
9 Depth = 33 m.						
Average detected <0.0045 ppb.						
Trace amounts detected.						
Average detected <0.10 ppb.						
Neerage detected <0.20 ppb. 1 Depth = 0.5 m.						
M Depth = 20.0 m.						
" Depth = 4 m.						
O Drainage No. 4.						
P Drainage No. 5.						
Toepth = 0 m.						
Depth = 50 m.						
* Depth = 500 m. * Death = 1000 m.			,			
^U Average detected <0.35 ng/L.						
* Detection limit = 5.0 ppb.						

Table C-17. Monitoring data for o,p'-DDT in water.

	Water	Ko. of	Repor	Reported values (119/L)	(1)	
Location	type ^a	samples	Average	Raxina	Coments	Reference
ANTARCTIC OCEAN	וענ	-	90000	0000		
AMTARCTIC OCEAN	¥ &		00000	000000	.	1 AMERICA
	3	- ,	0.0000	0.0000	۵	TAMASZ
MINACILL ULEAR	9C		00000	0.0000	ھ	TAM82
ARIARCIIC CEAR	90	_	0.0000	0.0000	U	TABLER
ANTARCTIC CCEAN	9CE	,	00000 0	0.0000	•	TAMAS
ARIARCTIC OCEAN	30	_	0.0000	0.0000	75	CHAMAT
ANTARCTIC OCEAN	33	_	0.0000	0.0000	•	TAMAR
BERMUDA, SARGASSO SEA	30 6 6		0.0000	9000	•	70.00
BERMUDA, SARGASSO SEA	,		00000	0.0000		5102/3
SARGASSO			60000	2000-0	5	610L/3
CADCASCO	֓֞֝֟֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֟ ֓֓֞֞֞֞֓֓֞֞֞֞֓֓֞֞֞֞֞֓֓֓֞֞	•••	0.0000	0.0000	e, f	610L73
SAMONSO	ä	_	0.0000	0.0000	f, 9	BIOL73
SAKEASSU	5	_	0.0000	0.0000		8101.73
SARGASSO	0 CE	_	00000-0	0.0000		810,73
SARGASSO	300	_	0.00030	0.0000	-	R103 73
SARGASSO	90E	_	9000000	0.0000		810173
SARGASSO.	36		0.0000	0.0000	,	R104 73
SARGASSO	30	_	000000	0.0000		810.73
BERMIDA, SARGASSO SEA	OCE		0.00008	0.0000		
	300	_	0.000		.	01UL/3
BERMUNA, SARGASSO SEA	ناد	-	00000	99999	ָרָ יִּ	61767.3
SARGASSO	3 5		0.000	0.0000	e, f	810,73
SABCASSO	5		8000000	0,0000	6	BIOL73
occupant.	33	_	0.0000	0.0000	e, f	810173

Table C-17. (Continued)

· ·	Water	No. of	Repor	Reported values (µg/L)	9/1)	
Location	type	samples	Average	Nax imum	Comments	Reference
BERPHIDA, SARGASSO SEA	J.C	•	30000 0.	0000		
BERMUDA, SARGASSO SEA	ָּבֶּי בְּיִבְּיִבְּיִבְּיִבְּיִבְּיִבְּיִבְּיִ	. ,	00000	00000	3 0	016.73
INDOCHINA CRITH CHINA CCA	3 8		0.0000	0.0000	٠,	8101.73
Contact Course on	3	_	20000	0.0000		TAIM82
Scott CHILD X.A	2		0.0001	0.0000		TAMARZ
CORAL SEA	OCE	~	0.0001	000000		TAMB2
CORAL SEA	36	-	0.00001	0.0000		TABASZ
CORAL SEA	OCE	_	0.0001	0.0000		TAMAR?
EGYPT, LAKE MARIUT	Ľ	12	0.0100	0.0000		CAAROO
EGYPT, MUMOUDIEH CANAL	MS	_	0.95000	0.0000		50.35
INDONESIA, JAVA SEA	_ 330	_	0.00001	0.0000		Taman
INDIAN OCEAN, JAVA TRENCH	OCE		0.0003	9000		TAMAGO
INDIAN OCEAN, S. OF INDONESIA) 0 0 0 0	, ,_	0.0001			Takan
INDIAN OCEAN	ענ		00000			ZONE Z
INDIAN OCEAN, OFF W. AISTRALIA	אָ נ		00000	0.0000	o '	INPASZ
WOLAN OCEAN C OF AMETON IA	3 3	- ,	0.0000	0.0000		TAMABZ
INDIA UCEMP S. UT AUSIRALIA Taban busin brito a secito conti	305	_	000000	0,0000	u	TAM82
	9CE		0.00001	0.0000	•	TAMASZ
JARAH MAMPU, SHOIG/IZU IKENCH, M. PACIFIC OCEAN	30		0.0000	0,0000	U	TAMA82
JATHA, MARTU, SHOID, M. PACIFIC OCEAN	9	<u>.</u>	0.0000	0.0000	7	TAMAR
PACIFIC OCEAN, MELANESIA	9CE	_	0.0000	0.0000		TAMA?
M. PACIFIC OCEAN, EAST CAROLINE BASIN	900		0.0001	0.0000		TAMAGO
N. PACIFIC GCEAN, MARIANA TRENCH	OCE	_	0.000	00000	•	70000
M. PACIFIC OCEAM, AGRIKAM ISLAMD	ž		90000	200000	۰	79MN1
	3	-	0.0000	00000	-	TAMARZ

Table C-17. (Continued)

	Water	. 90 0	Repo	Reported values (µg/L)	/L)	
Location	type	samples	Average	Haximus	Comments	Reference
N. PACIFIC OCEAN TASMAN SEA	300 300	- ALD -	0.00001	0.0000.0		TAMA82 TAMA82
Water types: BRK = brackish; CAR = canal; CIS = cistern; CRK = creek; DRR = drainage; GW = ground water; LAK = OCE = ocean; PAD = paddy; PND = pond; RES = reservoir RIV = river; RNF = runoff; SW = surface water; TAP = 1 WSI = waste water. Average detected <0.003 ng/L. Average detected <0.004 ng/L. Average detected <0.05 ng/L. Average detected <0.005 ng/L.	S = cistern; water; LAK = lake; - reservoir; ater; TAP = tap water;	iter;	Statistics: Number of 1 Number of s Mean of the Highest of Standard de Nean of the Standard de	Statistics: Number of locations sampled: 46 Number of samples within detection Mean of the highest reported values: Standard deviation: 0.20244 Mean of the natural logarithms: Standard deviation of the natural logarithms:	Statistics: Number of locations sampled: 46 Number of samples within detection limits: 22 Mean of the highest reported values: 0.04367 Highest of the reported values: 0.95000 Standard deviation: 0.20244 Mean of the natural logarithms: -9.95830 Standard deviation of the natural logarithms: 2.77635	1367

Table C-18. Monitoring data for p,p-DDT in water.

Mater No. of Average National Average Natio	¥*			Poo d	Penorted values Augil	(1/6	
OCE 1 0.00000 OCE 1 0.00000 OCE 1 0.00000 OCE 1 0.000001 OCE 0 0.000001 OCE 0 0.0000001 OCE 0 0.00000001 OCE 0 0.00000001 OCE 0 0.0000000001 OCE 0 0.000000000000000000000000000000000	Location	Hater	No. of			136	•
000 000 000 000 000 000 000 000 000 00		-Abe	samb ies	Average	Nax imum	Comments	Reference
0.00 0.00	ANTARCTICA TOTTIKI POINT	ž	-	, ,	90000		
0.000000000000000000000000000000000000	ANTARCTICA I ANCHONE	ž 8		0.0000	0.000	۵.	1AMB 3
0.00	ANTARCTICA, LANGUINE	3		0.0000	0.0000	م	TANAB3
LAK 1 0.00000 OCE 1 0.00001 OCE 1 0.00001 OCE 1 0.00002 OCE 1 0.00001 OCE 0.00001	ANIAKLICA, KITANG-URA COVE	30		0.0000	0.0000	۵	TAMAB 3
0CE 1 0.00001 0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00001	ANIAKCIICA, NURUME LAKE	Ľ¥	,	0.0000	0.0000	۵	TAWAB3
0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00001	ANTARCTICA	300		0.00001	0.0000	•	TAMAR3
0CE 1 0.00002 0CE 1 0.00000 0CE 1 0.00001 0CE 1 0.00000 0CE 1 0.00000 0CE 1 0.00000	ANTARCTICA	OCE		0.00002	0.0000	u	TAMAR
0CE 1 0.00000 0CE 1 0.00001 0CE 1 0.000001 0CE 1 0.000001 0CE 1 0.000001 0CE 1 0.000001 0CE 1 0.0000001 0CE 1 0.000001	ANTARCTICA	OCE	-	0.00002	0.0000	, ,	TAMAB3
OCE 1 0.00001 OCE 1 0.00002 OCE 1 0.00001 OCE 1 0.00001 OCE 1 0.00016 OCE 1 0.00006 OCE 1 0.00006 <t< th=""><td>ANTARCTIC OCEAN</td><td>300 6</td><td>-</td><td>0.0000</td><td>0.0000</td><td>,</td><td>TAMAR?</td></t<>	ANTARCTIC OCEAN	300 6	-	0.0000	0.0000	,	TAMAR?
0CE 1 0.00001 0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00003 0CE 1 0.00003 0CE 1 0.00001 0CE 1 0.00000		00E	_	0.0000	00000-0		TARA82
0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00003 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00012 0CE 1 0.00012 0CE 1 0.00016 0CE 1 0.00012 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00000 0CE 1 0.00000 <t< th=""><td></td><td>0CE</td><td></td><td>0.0000</td><td>0.0000</td><td></td><td>TAMAR2</td></t<>		0CE		0.0000	0.0000		TAMAR2
0CE 1 0.00000 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00003 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00016 0CE 1 0.00006 0CE 1 0.00006 0CE 1 0.00006 0CE 1 0.00006 0CE 1 0.00000 0CE 1 0.00000 0CE 1 0.00000 0CE 1 0.00000 0CE 1 0.00000 <t< th=""><td></td><td>OCE</td><td></td><td>0.00001</td><td>0.0000</td><td></td><td>TAMA92</td></t<>		OCE		0.00001	0.0000		TAMA92
0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00003 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00016 0CE 1 0.00006 0CE 1 0.00000 0CE 1 0.00000 <t< th=""><td></td><td>300 6</td><td></td><td>0.0000</td><td>0.0000</td><td></td><td>TAMA82</td></t<>		300 6		0.0000	0.0000		TAMA82
0CE 1 0.00001 0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00003 0CE 1 0.00003 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00016 0CE 1 0.00018 0CE 1 0.00018 0CE 1 0.00000		OCE	-	0.00001	0.0000		TAMA82
OCE 1 0.00002 OCE 1 0.00001 OCE 1 0.00001 OCE 1 0.00002 OCE 1 0.00003 OCE 1 0.00001 OCE 1 0.00001 OCE 1 0.00001 OCE 1 0.00016 OCE 1 0.00000 WAA, N.S.M. CIS 30 0.00000		300	_	0.0001	0.0000		TAMARZ
0CE 1 0.00001 0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00003 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00016 0CE 1 0.00010		300	_	0.00002	0.0000		TANA82
OCE 1 0.00002 OCE 1 0.00002 OCE 1 0.00003 OCE 1 0.00001 OCE 1 0.00001 OCE 1 0.00016 OCE 1 0.00010 OCE 1 0.00000		OCE	_	0.00001	0.0000		TANAB2
OCE 1 0.00002 OCE 1 0.00003 OCE 1 0.00001 OCE 1 0.00001 OCE 1 0.00016 OCE 1 0.00000 WAA, N.S.W. CIS 30 0.00000		3 OCE	-	0.00002	0.0000		TAKA82
0CE 1 0.00003 0CE 1 0.00001 0CE 1 0.00002 0CE 1 0.00016 0CE 1 0.00016 0CE 1 0.00012 0CE 1 0.00012 0CE 1 0.00006 WAA, N.S.M. CIS 30 0.00000 REV e 0.05000 0CE 1 0.00008		90E	_	0.00002	0.0000		TANA82
0CE 1 0.00001 0CE 1 0.00002 0CE 1 0.00002 0CE 1 0.00016 0CE 1 0.00012 0CE 1 0.00012 0CE 1 0.00012 0CE 1 0.00000 MAA, N.S.M. CIS 30 0.00000 RIV e 0.05000 0CE 1 0.00000		300	-	0.00003	0.0000		TAKA82
0CE 1 0.00002 0CE 1 0.00016 0CE 1 0.00016 0CE 1 0.00012 0CE 1 0.00012 0CE 1 0.00012 0CE 1 0.00000 MAA, N.S.M. CIS 30 0.00000 RIV e 0.05000 0CE 1 0.00000	ANIANCI IC CCEAN	OCE	_	0.0001	0.0000		TANA82
0CE 1 0.00016 0CE 1 0.00016 0CE 1 0.00012 0CE 1 0.00012 0CE 1 0.00000 MAA, N.S.W. CIS 30 0.00000 RIV e 0.05000 0CE 1 0.00000	ANTARCIIC OCEAN	OCE	~	0.00002	0.0000		TANA82
0CE 1 0.00016 0CE 1 0.00012 0CE 1 0.00012 0CE 1 0.000012 0CE 1 0.00000 0MAA, N.S.M. CIS 30 0.00000 RIV e 0.05000 0CE 1 0.00000	AKABI AN SEA	300 6	•	9,000.0	0.00000		TAMABO
0CE 1 0.00012 0CE 1 0.00012 0CE 1 0.00006 MAA, N.S.W. CIS 30 0.00000 RIV e 0.05000 0CE 1 0.00008	ARABIAN SEA	90CE	-	0.00016	0.0000		TAXABO
0CE 1 0.00006 MAA, N.S.W. CIS 30 0.0000 RIV e 0.05000 0CE 1 0.00008	AKABI AN SEA	OCE	_	0.00012	0.0000		TAMABO
MAA, N.S.W. CIS 30 0.00000 CIS 30 0.00000 RIV e 0.05000 OCE 1 0.00008		300	-	90000*0	000000		TAKABO
MAA, N.S.W. CIS 30 0.00000 RIV e 0.05000 OCE 1 0.00008	KM ABOVE THE	8 14	ĭ	0.0000	0.0000	79	L ENAS4
RIV e 0.05000 0CE 1 0.00008	AUSTRALIA, MAMOI VALLEY, MEE MAA, M.S.W.	CIS	30	0.0000.0	000000		OUN 74
. 0.00008	OKLOIUM, ETSUEM, MIYER MEUSE	RI	v	0.05000	0.13000		WEGM78
	EAT UP BEINGAL	33	_	0.0008	0.0000		TAMABO

Table C-18. (Continued)

		•	Repo	Reported values (119/L)	(1/6	
Location	type ^a	samples.	Average	Haximum	Comments	Reference
SAV OF BEHEAVE						
5 8	OCE		0.0000	0.0000		TANA80
	90E		0.0000	0.0000		TANABO
	OCE	_	0.0001	0.0000		TAMARO
BERING SEA	100	_	0.00002	0,0000		TAKABO
BERING SEA	OCE	_	0.00002	0.0000		TAMARO
BERING SEA	300	-	0.00001	0.0000		TAMASO
BERING SEA	OCE		0.00003	0.0000		TAMARO
BERING SEA	OCE.	_	0.0000	0.0000		TAMABO
BERING SEA	300	_	0.00002	0.0000		TANABO
	OCE.		0.00050	0.0000	4-	RID 73
SARGASSO	90E		0.00040	0.0000		810173
SARGASSO	300	enie.	0.0000	0.0000	n 4	810473
SARGASSO	300	-	0.00030	0.0000	. 57	810.73
	300	_	0.00003	0.0000	, 6	B104 73
SARGASSO	300	-	0.0000	0.0000	7 4 -	810.73
SARGASSO	300		0.00210	0.0000	•	810.73
SARGASSO	300		090000	0.0000	n 63	B1DL73
SAMEASSO	300 60E	_	0.0000	0.0000	۰ سـ	8101.73
SARGASSO	OCE		0.0000	0.0000	4 -	810173
	300 6	~	0.00020	0.0000	•	810.73
	OCE		0.0000	0.0000	• •	810173
	OCE	-	0.00070	0.0000	0	B104 73
	OCE	~	0.0000	0.0000	٠.	8101.73
	300		0.00020	0.0000	•	B1DL73
	330	_	00000	0.0000	1 4-	810173
BERTHUM, SAKBASSU SEA	30	_	0.00030	0.000.0	o	810.73
OCKNOWN, SANGASSO SEA	33 ·	-	00000-0	0.0000		810.73
Comment institute that unitario	LAK	ø	0.00450	0.0000	£	WALL 79

Table C-18. (Continued)

	Water	No. of	Repo	Reported values (119/L)	9/L)	
Location	type	samples	Average	Max faun	Coments	Reference
CANADA, TORONTO, LAKE ONTARIO	30					
CAMADA JIKA MIACADA BIUCB	ראא	v	0.00140	0.0000		MALL 79
CHARACTER MINGRAD MITTER	>	Ð	0.00240	0.0000		UAU 1 79
LAMANA, COLBURG, LAKE ONTARIO	ראג	•	0.00720	0.0000		UAL 1 79
EAST CHIMA SEA	300		0.0006			T0200
SOUTH CHIMA SEA	330		00000			LANABO
SOUTH CHINA SEA)		9000	0.0000		IAMBU
INDOCHINA SOUTH CHINA SEA	3	- •	0.0009	0.0000		TANA80
INDICATE CONTU CUINA CCA	U.E.	-	60000	00000		TANA82
	300		0.00012	0.0000		TANAR2
South Child State	300		0.0003	0.0000		TANAB2
	OCE	_	0.00005	0.0000		TAMAR
	OCE		0.00001	0.0000		TAMAR
	OCE	_	0.00002	0.0000		TAMADO
	300	_	0.00001	0.0000		TAMAR
	300	-	0.00002	0.0000		TAMAGO
CURAL SEA	300	-	0.00001	0.0000		TAMAR
COURT OF CO.	300	,	0.00002	0.0000		TAMABO
ESTFI, EL-SALAM	H9	_	1.00000	00000		51 7482
terpi, el-salaan	N9	_	0.00062	0.0000		C1 7463
EGYPT, EL-SALAAM	AS	, -	1.07000	0.000		51 2403
EGYPT, EL-SALAAM	789	_	00000		•	EL 2403
EGYPT, EL-SALAAN	A9		0.0021		•	EL 2A83
EGYPT, EL-SALAM	: 7		9000	0.0000		EL 2/83
EGYPT, EL-SALAAM	5 8	-,	0.5000	0.0000		EL 2A83
EGYPT, EL-SALADA	3		0.0000	0.0000	7	EL 2A83
EGYPT. EL-SU AAN		_	0.20000	0.0000		EL ZA83
EGYPT FI - SAL AM	75	~	0.54000	0.0000		EL 2A83
	19	-	0.24000	0.0000		EL 7A83
EGYPT FI - CAT AM	X 9		0.02000	0.0000		E1 ZA83
	79		0.12000	0.0000		

Table C-18. (Continued)

•	Vator	Jo of	Repo	Reported values (119/L)	g/L)	
Location	type	sæples .	Average	Nax faus	Coments	Reference
EGYPT, EL-SALAAM	75	-	0.8800	0.0000		EL ZAR3
EGYPT, LAKE MARIUT	ž	12	0.13,00	0.0000		CAADRO
EGYPT FILCHYNIE MATED TECATMENT DI ANT	3	! ~			7	2000
EGYPT, MANGEMENTER	7 TAP		300000	00000	9	CLX/9
	2	• ,	2000			(LX/)
term, Adres	IIST	,	0.25000	0.0000		EL SE 79
FRANCE, MEDITERRANEAN SEA, 10 MI. FROM COAST	300	32	0.00800	0.09000		MEST83
FRANCE, MEDITERRANEAN SEA, LITTORAL PONDS	PND	96	0.11800	0.57500		HEST83
FED. REPUBLIC OF GERMANY, HANBURG, ELBE RIVER	RIV	12	0.0000	0.0000	•	HFR772
FED. REPUBLIC OF GERMANY, LAUENBURG, ELBE RIVER	RIV		0.16500	0.0000	ì	HERZ7.
FED. REPUBLIC OF GERMANY, BREMEN, WESFR RIVER	RIV	5	0.0000	0.0000	70	HFB772
REPUBLIC OF GERMANY,	RIV		0.0000	0.0000	10	HER 272
REPUBLIC OF	RIV	=	0.00000	0.17000		HER272
REPUBLIC OF GERMANY,	RIV	15	0.0000	0.05500		HER172
REPURLIC OF	RIV	_	0.0000	0.0000	70	HER272
REPUBLIC OF	RIV	-	0.0000	0.0000	77	HER272
REPUBLIC OF	RIV	~	0.0000	0.0000	70	HER272
REPUBLIC OF GERNAMY.	RIV	15	0.0000	000000	70	HER 272
REPUBLIC OF GERMANY,	RIV	,	0.0000	0.0000	70	HER272
REPUBLIC OF GERMANY.	RIV	-	0.0000	0.0000	70	HER272
REPUBLIC OF	RIV	-	0.0000	0.00000	₽	HER 272
REPUBLIC OF	RIV		0.0000	0.00000	ש	HER272
REPUBLIC OF	RIV	p -3	0.0000	0.0000	70	HER272
REPUBLIC OF	RIV	,-	0.0000	0.0000	70	HER 272
REPUBLIC OF GERMANY,	RIV	~	0.0000	0.0000	70	HER272
REPUBLIC OF GERMANY,	RIV	_	0.0000	0.0000	•	HER 272
MEPUBLIC OF GERMANY, FACHBACH, LAHN R	RIV	 -	0.0000	0.0000	ъ	HER272
	RIV	-	0.0000	0.0000	יסי	HER272
KEPUBLIC OF	RIV	_	0.0000	0.0000	•	HER 272
FED. REPUBLIC OF GERMANY, BAD BERNECK, MAIN RIVER	RIV	-	0.0000	0.0000	70	160772

Table C-18. (Continued)

		reter ret	No.	Kepo	Reported values (119/L)	9/1)	
PUBLIC OF GERMANY, HEIDELBERG, MCCKAR RIVER PUBLIC OF GERMANY, LANGENARGEN, LAKE CONSTANCE LAK PUBLIC OF GERMANY, LANGENARGEN, LAKE CONSTANCE PUBLIC OF GERMANY, LANGENARGEN, REGALTZ RIVER PUBLIC OF GERMANY, BEALIN-GATOM, HAVEL RIVER PUBLIC OF GERMANY, BEALIN-GATOM, HAVEL RIVER PUBLIC OF GERMANY, BERLIN-GATOM, HAVEL RIVER PUBLIC OF GERMANY, BERLIN-GATOM, HAVEL RIVER PUBLIC OF GERMANY, BERLIN-GATOM, HAVEL RIVER PUBLIC OF GERMANY, BEALIN-GATOM, HAVEL RIVER REXIOLO, OFF MISSISSIPPI BERLIN-LICHTERFELLE, "ELTOMKANAL BERLIN-LICHTERFELLE," ELTOMKANAL BERLIN-LICHTERFELLE," OLO0000 OCE 11A, JARARIA, SAWARANG, SURABAYA RIV, JANA SEA ANTHAR RESERVOIR RESERVOIR RESERVOIR RESERVOIR RESERVOIR RESERVOIR RESERVOIR RESERVOIR RIV 1 0.00000 CALCUITA CALCUITA PHOD COCEAN, JANA TREMCH OCE 1 0.00000 CCEAN, JANA TREMCH OCE 1 0.00001 CCEAN, S. OF INDOMESIA CCEAN, S. OF INDOMESIA CCEAN, S. OF INDOMESIA CCEAN, S. OF INDOMESIA CCEAN, OFF M. AUSTRALIA CCEAN, OFF CCEAN, OFF M. AUSTRALIA CCEAN, OFF CCEAN, OFC CCEAN, OCC CCEAN, O	Location	type	samples .	Average	Nazima	Coments	Reference
PUBLIC OF GERMANY, IAMSENARGEN, LAKE CONSTANCE PUBLIC OF GERMANY, EGAITZ RIVER PUBLIC OF GERMANY, EGAITZ RIVER PUBLIC OF GERMANY, EGAITZ RIVER RIV PUBLIC OF GERMANY, EGAITZ RIVER RIV PUBLIC OF GERMANY, EGAITA RIVER RIV PUBLIC OF GERMANY, EGAITA RIVER RIV RIV PUBLIC OF GERMANY, EGAITA RIVER RIV RIV RIV RIV RIV RIV RIV RIV RIV RI	FED. REPUBLIC OF GERMANY, HEIDELBERG, NECKAR RIVER	>10		00000	00000		
PUBLIC OF GERNANY, ERANGEN, EGAITZ RIVER PUBLIC OF GERNANY, BECAITZ RIVER PUBLIC OF GERNANY, BERLIN-GATON, HAVEL RIVER BERLIN-LICHTERFELOE, "ELTOMEANAL RIVER BERLIN-LICHTERFELOE, "ELTOMEANA RIVER BERLIN-LICHTERFELOE BERLIN-LICHTERFELOE BERLIN-LICHTERFELOE BERLIN-LICHTERFELOE BERLIN-LICHTERFELOE BERLIN-LICHTERFELOE BERLIN-LICHTERFELOE BERLIN-LICHTERFELOE BERL	FED. BEDRAG IC OF CEDMANY CANCENSORS CANCERSORS		• (20000	0.0000	5	HEX1/2
PUBLIC OF GERNAMY, ENLANGEN, REGAILT RIVER RIV 1 0.10000 PUBLIC OF GERNAMY, BERLIN-GATOM, HAVEL RIVER RIV 15 0.00000 BERLIN-LICHTERFLOE, "ELTOMKANAL RIVE 15 0.00000 HEXICO, OFF MISSISSIPPI SERLIN-LICHTERFLOE, "ELTOMKANAL RIVE 15 0.00000 HEXAL JAVA SEA 15 0.00000 HEXAL JAVA RECERVOIR RESERVOIR RIVE 15 0.00000 HEXAL JAVA TREWCH 0.00000 HELH, JANUMA RIVER 15 0.00000 HELH, JANUMA RIVER 0.000000 HELH, JANUMA RIVER 0.000000 HELH, JANUMA RIVER 0.000000 HELH, JANUMA RIVER 0.00000000000000000000000000000000000	TO STREET TO ST STREET AND THE LONGINGER	ž		0.0000	0.0000	7	HER272
PUBLIC OF GERNAMY, BERLIN-GATOM, HAVEL RIVER RIV 1 0.00000		RIV	_	0.10000	0.0000		HER 272
BERLIN-LICHTERFELOR, HAVEL RIVER RIV 15 0.00000	TEU. MEPUBLIC UP GERMANY, HOF. SAALE RIVER	A I A		0.0000	0.0000	9	HER772
BERLIN-LICHTERFELOG, 'ELTOMKANAL RIV 15 6.00000 MEXICO, OF MISSISSIPPI OCE 35 0.00060 I.A. JEPARA BRK 1 0.01000 I.A. JAKARTA, SAWARANG, SURABAYA RIV 2 0.01000 I.A. JAVA SEA RIY 2 0.01000 I.A. JAVA SEA RES 1 0.00006 I.A. JAVA SEA RES 1 0.00006 ANHIAR RESERVOIR RES 1 0.00000 SATHIAR RESERVOIR RES 1 0.00000 CALCUTTA GM 4 0.00000 CALCUTTA SAMGES RIVER RIV 2 0.00000 CALCUTTA SAMGES RIVER RIV 2 0.00000 CALCUTTA SAMGES RIVER RIV 2 0.00000 CELLITA SAMINA RIVER RIV 6 0.00000 DELHI, JAMUMA RIVER RIV 1 0.00000 OCEAN, JAVA TRENCH 0.00000 0.00000 0.00000 OCEAN, SOF INDO	FED. REPUBLIC OF GERMANY, BERLIN-GATON, HAVEL RIVER	XIX	15	0.0000	0.04500		HER772
MEXILO, OFF MISSISSIPPI OCE 35 0.00060 MAXILO, OFF MISSISSIPPI OCE 35 0.00060 Max JAVARTA, SAMMANG, SURBAYA RIY 2 0.01000 Max JAVARTA, SAMMANG, SURBAYA GCE 1 0.00003 Max JAVA SEA GCE 1 0.00006 Max JAVA SEA GCE 1 0.00006 MAX JAVA SEA GCE 1 0.00006 MAX JAVA SERVOIR RES 12 0.00000 MAX JAVA SERVOIR RES 14 0.00000 CALCUTTA GANGES RIVER RIY 2 0.00000 CALCUTTA GANGES RIVER RIY 2 0.00000 CALCUTTA GANGES RIVER RIY 1 0.00000 CELHI, JAVANA RIVER RIY 1 0.00000 CECAN, JAVA TRENCH OCE 1 0.00001 OCEAN, JAVA TRENCH OCE 1 0.00001 OCEAN, S. OF INDONESIA OCE 1 0.00001 OCEAN, OFF M. AUSTRALIA OCE 1 0.00001 OCEAN, OCEAN, OFF M. AUSTRALIA OCE 1 0.00001 OCEAN, OC	F.R.G., BERLIN-LICHTERFELGE, 'ELTORKANAL	RIV	15	0.0000	0.13500		H- R772
1A. JEPARA BRK 1 0.01000 1A. JAVARTA, SAMARANE, SIRABAY RIY 2 0.01000 1A. JAVA SEA 1A. JAVA SEA 0.00003 0.00003 1A. JAVA SEA 1A. JAVA SEA 0.00000 0.00000 1A. JAVA SER 1B. D. 00000 0.00000 0.00000 SATHIAR RESERVOIR RES 12 0.00000 SATHIAR RESERVOIR RES 12 0.00000 CALCUTTA GW 4 0.00000 CALCUTTA SWES 1 0.00000 CELHI, JANUAR RIVER RIV RIV 0.00000 OCEAN, JAVA TRENCH OCEAN, JAVA TRENCH 0.00000 0.0000 OCEAN, JAVA TRENCH OCEAN, JAVA TRENCH 0.00000 0.00000	GULF OF MEXICO, OFF MISSISSIPPI	OCE	35	090000	0.0000		61AND
IA, JAKARTA, SAWARANG, SIRABAYA RIY 2 0.01000 IA, JANA SEA 0CE 1 0.00003 IA, JANA SEA 0CE 1 0.00006 SATHIAR RESERVOIR RES 2 0.00000 SATHIAR RESERVOIR RES 12 0.00000 SATHIAR RESERVOIR RES 12 0.00000 CALCUTTA GW 4 0.00000 CALCUTTA GW 4 0.00000 CALCUTTA GW 2 0.00000 CALCUTTA GW 2 0.00000 CALCUTTA GW 2 0.00000 CALCUTTA GW 4 0.00000 DELHI, JANJAR RIVER RIV 1 0.00000 DELHI, JANJAR RIVER RIV 6 0.00000 DCEAN, JAVA TRENCH 0CE 1 0.00000 DCEAN, JAVA TRENCH 0CE 1 0.00000 DCEAN, JAVA TRENCH 0CE 1 0.00000 DCEAN, GF W. AUSTRALIA 0CE <td>INCOMESTA, JEPARA</td> <td>BRK</td> <td>p</td> <td>0.01000</td> <td>0.0000</td> <td></td> <td>Pimm77</td>	INCOMESTA, JEPARA	BRK	p	0.01000	0.0000		Pimm77
1A, JAVA SEA OCE 1 0.00003 1A, JAVA SEA 0.00 1 0.00006 SATHIAR RESERVOIR RES 2 0.0000 SATHIAR RESERVOIR RES 12 0.0000 SATHIAR RESERVOIR RES 12 0.0000 SATHIAR RESERVOIR RES 12 0.0000 CALCUTTA GW 4 0.0000 CALCUTTA SW 2 0.0000 CELHI, JANUMA RIVER RIV 1 0.0000 DELHI, JANUMA RIVER RIV 1 0.0000 DCEAN, JAVA TREMCH QCE 1 0.0000 DCEAN, S. OF INDONESIA QCE 1 0.0000 DCEAN, S. OF INDONESIA QCE 1 0	INDONESIA, JAKARTA, SAMBRANG, SURABAYA	RIV	2	0.01000	0.01000		PLRM77
IA, JAVA SEA 0.0006 SATHIAR RESERVOIR RES 2 0.00800 SATHIAR RESERVOIR RES 12 0.00800 SATHIAR RESERVOIR RES 12 0.00800 SATHIAR RESERVOIR RES 1 0.00800 CALCUTTA GW 4 0.00000 CALCUTTA SW 2 0.00000 CELHI, JANUNA RIVER RIV 1 0.06000 DCEAH, JANUNA RIVER RIV 6 1 0.00000 DCEAN, JAVA TREMCH OCE 1 0.00000 DCEAN, JAVA TREMCH OCE 1 0.00000 DCEAN, S. OF INDONESIA OCE 1 0.00000 </td <td>INUCESIA, JAVA SEA</td> <td>OCE.</td> <td>,</td> <td>0.00003</td> <td>0.00000</td> <td></td> <td>TAMAR?</td>	INUCESIA, JAVA SEA	OCE.	,	0.00003	0.00000		TAMAR?
SATHIAR RESERVOIR RES 2 0.00800 SATHIAR RESERVOIR RES 12 0.00540 SATHIAR RESERVOIR RES 12 0.00540 CALCUTTA GM 4 0.00540 CALCUTTA GM 4 0.0000 CALCUTTA SM 2 0.0000 CALCUTTA MUSTRACH 0.0000 0.0000 DECAN, JAVA TRENCH 0.0000 0.0000 0.0000 OCEAN, JAVA TRENCH 0.0000 0.0000 0.0000 0.0000 OCEAN, S. OF INDONESIA 0.0000 0.0000	INDOMESTA, JAVA SEA	OCE	_	900000	0.0000		TANAR?
SATHIAR RESERVOIR RES 12 0.00000 SATHIAR RESERVOIR RES 12 0.00540 CALCUTTA GM 4 0.0000 CALCUTTA SM 2 0.0000 CALCUTTA SM 2 0.0000 CALCUTTA SM 2 0.0000 CALCUTTA PMD 2 1500.0000 CALCALL JAMINAR RIVER PMD 2 1500.0000 <td>INDIA, SATHIAR RESERVOIR</td> <td>RES</td> <td>7</td> <td>0.00800</td> <td>0.00850</td> <td></td> <td>KANA79</td>	INDIA, SATHIAR RESERVOIR	RES	7	0.00800	0.00850		KANA79
SATHIAR RESERVOIR RES 1 0.00540 CALCUTTA GW 4 0.00000 CALCUTTA SW 2 0.00000 CALCUTTA SW 2 0.00000 CALCUTTA PMD 2 1500.0000 DELHI, JANUMA RIVER RIV R 1 0.00000 DELHI, JANUMA RIVER RRIV R 1 0.00000 DCEAN, JAVA TRENCH CE 1 0.00000 DCEAN, S. OF INDONESIA 0.00000 0.00000 DCEAN, OFF M. AUSTRALIA 0.00000	INDIA, SATHIAR RESERVOIR	RES	12	0.0000	0.00930		KAMP79
CALCUTTA CALCUTTA CALCUTTA CALCUTTA CALCUTTA CALCUTTA CALCUTTA CACCOOO CALCUTTA CALCUTTA CACCOOO CALCUTTA CALCUTTA CACCOOO CALCUTTA CALCUTTA CACCOOO CACCAN, JANA RENCH CACCOOOO CACCAN, JANA RENCH CACCOOO CACCAN CACCAN CACCAN CAC	INDIA, SATHIAR RESERVOIR	RES	***	0.00540	0.0000		V 8 MW 70
CALCUTTA, GANGES RIVER CALCUTTA CACCONO CACCAN, SAVA TRENCH CACCONO CACCAN, SAVA TRENCH CACCONO CACCAN, CALCUTTA CACCONO CACCAN, CALCUTTA CACCONO CACCAN, CACCAN CACCAN, CACCAN CACCAN, CACCAN CACCAN, CACCAN CACCAN, CACCAN	INDEA, CALCUITA	'n	7			•	NAME / S
CALCUTTA CALCUT	INDIA, CALCUITA, GANGES RIVER	7 7	• (0.0000	00000	5	MCK #80
CALCUTTA CALCUT	INDIA, CALCITY	A :	7 (0.0000	0.0000	7	PERCHBO
DELHI, JANUNA RIVER FNU 2 1500,0000 DELHI, JANUNA RIVER RIV 1 0.06000 DELHI, JANUNA RIVER RIV e 0.06000 DCEAN, JAVA TRENCH OCE 1 0.00009 OCEAN, JAVA TRENCH OCE 1 0.00009 OCEAN, S. OF INDONESIA OCE 1 0.00002 OCEAN, S. OF INDONESIA OCE 1 0.00003 OCEAN OCE 1 0.00001 OCEAN OFF W. AUSTRALIA OCE 1 0.00001 OCEAN, OFF W. AUSTRALIA OCE 1 0.00001 OCEAN, OFF W. AUSTRALIA OCE 1 0.00001	INDIA. CA CITTA	3 6	2	0.0000	0.0000	70	MIKHBO
DELHI, JANUMA RIVER DELHI, JANUMA RIVER RIV RIV RIV RIV RIV RIV RIV	SEDIA DELLI JAMMA DIUCE	2	2	500,0000	0.0000		MUCHBO
DCEAN, JAVA TRENCH OCEAN, JAVA TRENCH OCEAN, JAVA TRENCH OCEAN, S. OF INDONESIA OCEAN, S. OF INDONESIA OCEAN	INDIA DELLI JAMES DIVID	R.	,_	0.06000	0.96000		SAST83
0CE 1 0.00009 0CE 1 0.00013 0CE 1 0.00001	THOTAL OCCAR JANA TROUGH	>	e j	0.0000	0.0000	-	SASTR3
0CE 1 0.00013 0CE 1 0.00002 0CE 1 0.00003 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00001	INDIAN OCEAN, JAKA TATIOT	<u>س</u>		60000.0	0.0000		TANA82
9CE 1 0.00002 9CE 1 0.00003 9CE 1 0.00001 9CE 1 0.00001 9CE 1 0.00001	TENTER OFFER OF THE STATE OF TH	9CE	, -	0.00013	0.0000		TAKAR2
0CE 1 0.00003 0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00001	INDIAN UCLAN, S. UF INDOMESIA	3CE		0.00002	0.0000		TAM82
0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00001	INDIAN OCEAN, D. OF INDUCESIA	OCE	-	0.00003	0.0000		TAMAR?
0CE 1 0.00001 0CE 1 0.00001 0CE 1 0.00001	INDIAN OCEAN	30	-	0.00001	0.0000		TARA82
0CE 1 0.00001 0CE 1 0.00001	THOTAR OCIAN OCI : A STATE : .	90	,	0.00001	0.0000		TANA82
OCE 1 0.00001	INDIAN OFFAN OFF 12 ASSTRALLA	90E	,	0.0000	0.0000		TAMA82
	WINDLESS OF THE PROPERTY	OCE	_	0.00001	0.0000		TANABZ

Table C-18. (Continued)

1		Water	No. of	Repo	Reported values (11g/L)	9/د)	
CEAN, S. OF AUSTRALIA OCE 1 0.00005 0.00000 LAKE KINNERET 1 0.00006 0.00000 4, 4 LAKE KINNERET LAK 19 0.00000 0.01550 1 JORDAN RIVER RIY 6 0.00000 0.00000 4, 4 1 JORDAN RIVER RIY 6 0.00000 0.00000 4, 4 1 MESHUSHIN RIVER RES 0.00000 0.00000 0.00000 4, 5 R LAKE KINNERET WATERSHED RR RIY 1 0.00000 0.00000 4, 5 R MESSENDIR RRES 1 0.00000 0.00000 4, 5 R KITSHON RESERVOIR RES 1 0.00000 0.00000 4, 5 R KITSHON RESERVOIR RES 1 0.00000 0.00000 4, 5 R KITSHON RESERVOIR RESERVOIR RES 1 0.00000 0.00000 1 GEVAT RESERVOIR RITSTALA RES	Location	type		Average	Haximum	Coments	Reference
LIME KINNERT MITERSHED DAN RIVER AT FOUNT RIY 1 0.00000 0.00000 0, 0.00000 1.01580 1 1.00000 0.00000 0.00000 0, 0.00000 1.01580 1 1.00000 0.00000 0.00000 0, 0.00000 0.00000 0, 0.00000 0.00000 0, 0.00000 0.00000 0, 0.00000 0.00000 0, 0.00000 0.00000 0, 0.00000 0.00000 0, 0.00000 0.00000 0, 0.00000 0, 0.00000 0.00000 0, 0.00000 0.00000 0, 0.	INDIAN OFFAN C OF AUCTOM TA		,	30000			
LUKE KINNERET MATERSKED, DAM RIVER AT FOUNT RIY 19 0.00000 0.01980 J.	ENDIAG OFFAN. C. OF AUCTOR 1A	ម្ភី ដ		0.0000	0.0000		1 AMAB2
LAKE KINNERER LATERSHED, DAM RIVER AT FOUNT LAK 119 0.00000 0.01580 J J J J J J J J J J J J J J J J J J J		3	- ;	0.000	0.000		MARK
LAME KINNERET MATERSER, DAM RIVER AT FOUNT RIY I 0.00000 0.00000 d, j d. j		CAX	6	0.0000	0.01580	~	KAHA74
LAKE KINTER RIV 6 0.00000 0.00400 3 LAKE KINTERSHED RIV 1 0.00000 0.00000 4, 3 LAKE KINTERSHED RIV 1 0.00000 0.00000 4, 3 LAKE KINTERSHED RIV 1 0.00000 0.00000 4, 3 JORDAN RISERVOIR RES 1 0.00000 0.00000 4, 3 KISHON RESERVOIR RES 1 0.00000 0.00000 4, 3 KISHON RESERVOIR RESERVOIR RES 1 0.00000 6, 3 KISHON RESERVOIR RESERVOIR RES 2 0.00000 6, 3 KISHON RESERVOIR RES 3 0.00000 6, 3 6, 3 KISHON RESERVOIR RES 4 0.00000 0.00000 3 GEVAT RESERVOIR RES 4 0.00000 0.00000 4, 3 COMSTAL AQUIFER GM 1 0.00000 0.00000 6, 0 COASTAL AQUIFER GM 1	, LAKE KINNERET MATERSHED, DAN RIVER	Z.		0.0000	0.0000	d, 3	XAHA74
CONSTALL AQUIFER CONSTALL AQ	_	RIV	9	0.0000	0.00400	· ~	KAHA74
LAKE KIMMERET MATERSHED DRN 3 0.00000 0.00000 4, j JORDAN RIFER (LONER) RIV 1 0.00000 0.00000 4, j JORDAN RIFER (LONER) RES 1 0.00000 0.00000 4, j ASSUNDER RESERVOIR RES 1 0.00000 0.00000 4, j KISHON RESERVOIR NORTH RES 1 0.00000 0.00000 4, j KISHON RESERVOIR NORTH RES 1 0.00000 0.00000 4, j KISHON RESERVOIR NORTH RES 2 0.00000 0.00000 3 KISHON RESERVOIR RESERVOIR RES 3 0.00000 0.00000 3 CEVAT RESERVOIR RES 1 0.00000 0.00000 3 4 COASTAL AQUIFER GM 1 0.00000 0.00000 4 4 COASTAL AQUIFER GM 1 0.00000 0.00000 4 4 COASTAL AQUIFER GM 1 <td></td> <td>RIV</td> <td>-</td> <td>0.0000</td> <td>0.0000</td> <td>4.4</td> <td>KAHA74</td>		RIV	-	0.0000	0.0000	4.4	KAHA74
VASUOR RESERVOIR RES 1 0.00000 0.00000 4, j		SS N	m	0.0000	0.0000	, .	KAHA74
YASUOR RESERVOIR RES 1 0.00000 0.00000 4, j REL-MOTAR RESERVOIR RES 1 0.00090 0.00000 3 REL-MOTAR RESERVOIR RES 1 0.00000 0.00000 4, j KISHOR RESERVOIR RESERVOIR RES 1 0.00000 0.00000 3 KISHOR RESERVOIR RESERVOIR RES 2 0.00000 0.00000 3 GEVAT RESERVOIR RESERVOIR RES 4 0.00000 0.00000 3 GEVAT RESERVOIR RES 1 0.00000 0.00000 3 GEVAT RESERVOIR RES 1 0.00000 0.00000 3 GEVAT RESERVOIR RES 1 0.00000 0.00000 3 CONSTAL AQUIFER GM 1 0.00000 0.00000 4 COASTAL AQUIFER GM 1 0.00000 0.00000 4 COASTAL AQUIFER GM 1 0.00000 0.00000 0.00000		RIV		0.0000	0.0000	4, 1	K AHA 74
REL-NOTAGA RESERVOIR RÉS 1 0.00090 0.00000 4 5 KISHOM RESERVOIR RES 1 0.00000 0.00000 4 5 KISHOM RESERVOIR RESERVOIR 1 0.00000 0.00000 3 KISHOM RESERVOIR RES 2 0.00000 0.00000 3 KISHOM RESERVOIR RES 3 0.00000 0.00000 3 GEVAT RESERVOIR RES 1 0.00000 0.00000 3 CONSTAL AQUIFER RES 1 0.00000 0.00000 4 CONSTAL AQUIFER GM 1 0.00000 0.00000 0.00000 CONSTAL AQUIFER GM </td <td></td> <td>RES</td> <td></td> <td>000000</td> <td>0.0000</td> <td>, d.</td> <td>KAHA74</td>		RES		000000	0.0000	, d.	KAHA74
KISHON RESERVOIR KES 1 0.00000 J KISHON RESERVOIR KES 2 0.00000 J GEVAT RESERVOIR KES 3 0.00000 J GEVAT RESERVOIR KES 3 0.00000 J GOODOO 0.00000 J GEVAT RESERVOIR KES 3 0.00000 J GOODOO 0.00000 G GOODOO 0.00000 G GOOSTAL AQUIFER GON J GOODOO 0.00000 G GOODOO 0.00000 G GOOSTAL AQUIFER GON J GOODOO 0.00000 G		RES	pada.	0.00000	0.0000	, ^	KAKA74
KISHOM RESERVOIR, MORTH RES KISHOM RESERVOIR, MORTH RES KISHOM RESERVOIR KISHOM RESERVOIR KES CONOCOO CONOCOO CONSTAL AQUIFER CONSTAL ADORDO CONSTAL ADORDO CONSTAL ADORDO CONSTAL ADORDO CONSTAL ADORDO CONSTAL ADORD	_	RES		0.0000	0.0000	Ġ.	XAHA74
KI SHOM RESERVOIR, SOUTH RES 2 0.00000 3 GEVAT RESERVOIR RES 3 0.00060 0.00150 3 GEVAT RESERVOIR RES 4 0.00060 0.00150 3 GEVAT RESERVOIR RES 1 0.00060 0.00000 3 ZOHAR RESERVOIR RES 1 0.00000 0.00000 3 ZOHAR RESERVOIR RIV 13 0.00000 0.04000 3 ZOHAR RESERVOIR RIV 13 0.00000 0.04000 3 COASTAL AQUIFER GM 1 0.00000 0.00000 4 COASTAL AQUIFER GM 1 0.00000 0.00000 6 COASTAL AQUIFER GM 1 0.00000 0.00000		RES		0.00600	0.0000) •	K SHA74
GEVAT RESERVOIR RES 3 0.00060 0.00150 j CEVAT RESERVOIR RES 4 0.00060 0.50600 j COHAR RESERVOIR RES 1 0.00060 0.50600 j COMASTAL AQUIFER GM 1 0.00000 0.00000 d COASTAL AQUIFER GM 1 0.00000 0.00000 d COASTAL AQUIFER GM 1 0.00000 0.00000 d COASTAL AQUIFER GW 1 0.00000 0.	KISHON RESERVOIR.	RES	7	00000-0	0.0000	, " ")	XAMA74
GEVAT RESERVOIR (ENTRANCE) RES 4 0.00060 0.00000 J ZOHAR RESERVOIR RES 1 0.00010 0.00000 J JORDAN RIVER GM 13 0.00000 0.04000 J COASTAL AQUIFER GM 1 0.00000 0.00000 d COASTAL AQUIFER GM 1 0.00000	ISRAEL, GEVAT RESERVOIR	RES	m	0.00060	0.00150	•	KAHA74
COASTAL AQUIFER COASTAL AQ	ISRAEL, GEVAT RESERVOIR (ENTRANCE)	RES	~	09000-0	0.0000	. ~~	KAHA74
COASTAL AQUIFER RIV 13 0.00000 0.04000 COASTAL AQUIFER GW 1 0.00000 0.00000 d COASTAL AQUIFER GW 1 0.00000 0.00000 <t< td=""><td></td><td>RES</td><td>_</td><td>0.00010</td><td>0.0000</td><td>· •••</td><td>KANA74</td></t<>		RES	_	0.00010	0.0000	· •••	KANA74
COASTAL AQUIFER GW 1 0.00000 0.00000 d	JORDAN B	RIV	13	00000-0	0.04000	•	PA276
COASTAL AQUIFER COASTAL AQUIFE	COASTAL	N 9		0.0000	0.0000	70	LAHK74
COASTAL AQUIFER COASTAL AQUIFE	COASTAL	75.5	_	00000-0	0.0000	70	LAHA74
COASTAL AQUIFER COASTAL AQUIFE	COMSIAL	7 9		0.0000	0.0000	•	LAHA74
COASTAL AQUIFER COASTAL AQUIFE	COASTAL	75	_	00000-0	0.0000	•	LAHA74
COASTAL AQUIFER COASTAL AQUIFE	COASTAL	75	gash	0.0000	0.0000	79	LAHA74
COASTAL AQUIFER COASTAL AQUIFE	COASTAL	75	, -	00000-0	0.0000	70	LAHA74
COASTAL AQUIFER	COMSTAL	M9		0.0000	0.00000	70	LAHA74
AQUIFER 6W 1 0.00000 0.00000 d AQUIFER 6W 1 0.00000 0.00000 d AQUIFER 6W 1 0.00000 0.00000 d	COASTAL	3	w	0.0000	0.0000	70	LARA74
AQUIFER 64 1 0.00000 0.00000 d AQUIFER 64 1 0.00000 0.00000 d		N 9	_	0.0000	0.0000	ਚ	LAHA74
AQUIFER 6W 1 0.00000 0.00000 d		H 9	,	0.0000	0.0000	7	LAHA74
		N9		0.0000	0.0000	70	LAHA74

Table C-18. (Continued)

Location	Water No of				
	samples	Average	Maximum	Coments	Reference
ISRAEL, CONSTAL AQUIFER	-	O OOOO	O chonco	,	1 AVA7A
ITALY, PO RIVER RIV	N 18	0.000	0.0000		187
_	11Y 18	000000	0.0000	. A.	GALAS I
ITALY, COASTAL ARCH M. OF TARANTO, TARA RIVER BASIN SM	5 2	0.0000	0.05000		POLERS
JAPAK, KITAKYUSHU DISTRICT, TOMBA RESERVOIR	20 10	0.0000	0.0000	70	YAMAROE
JAPAN, KITAKYUSHU DISTRICT, ONGA RIYER	01 A18	0.0000	0.0000	• •	YAMARR
JAPAN, RYUKU RETTO, N. PACIFIC OCEAN	CE J	0.00004	0.0000)	TAMB2
JAPAN, RYUKU RETTO, N. PACIFIC OCEAN		0.00005	0.0000		TAMARO
MANPO SHOTO/120 TRENCH, N. PACIFIC	CE 1	0.0000	0.0000		TAMB2
	ic J	0.0001	0.0000		TAMAR
	CE 1	0.0000	0.0000		TARAR?
NAMPO SHOTO, N. PACIFIC OCEAN	, , , , , , , , , , , , , , , , , , ,	0.0002	0.0000		TANARO
KENYA, MAKURU MATIONAL PARK, LAKE MAKURU	AK 1	0.0000	0.0000		G2E 178A
KENYA, MZOIA RIYER CATCHMENT	11A · 11	0.0000	0.0000		KAL 77
NZOIA RIVER CATCHNENT	IIV 13	0.0000	0.0000		KALL77
KENYA, LAKE MAKURU	.AK e	0.0000	0.0000		KM177
KENYA, LAKE ELEMENTEITA	AK e	00000-0	0.0000		KALL77
KENTA, LAKE MAJVASHA	F	0.0000	0.0000		KAL27
	ilv e	00000*0	0.0000		KALL77
	11v	0.0000	0.0000		KALL77
PIANDANG	AD 3	00000-0	0.00000	70	ME 1E83
FULATSIA, KRIAN DIST, PERAK STATE, SUNGEL KOTA FIELD PAD	3	1.60000	0.0000		ME 1E83
	ND 3	0.0000	0.0000	70	NE IE83
=	.AN	0.40000	0.0000		ME I FR3
STATE, SUNGEI BURONG	AN 3	0.2000	0.0000		PE I E B 3
	CE 10	0.00035	0.00060		61AP73
ITH, RHINE RIVER	IIV e	0.020.0	0.31000		MEGNOS
FALIFIC ULEAN, MELANESIA		0.00002	0.0000		TAW82

Table C-18. (Continued)

	Water	Ro. of	Repo	Reported values (119/L)	9/۱}	
Location	type ^a	samples.	Average	Nax imm	Comments	Reference
PACIFIC OCEAN, MELAMESIA	330	-	0 00003	00000		TAMAGO
N. PACIFIC OCEAN, EAST CAROLINE BASIN	330		0.0002	0000		TAMAS
N. PACIFIC OCEAN. EAST CAROLINE BASIN) (CF		0 0000			TABLES
PACIFIC OCEAN,				00000		198067
	33		0000.0	0.0000		148487
N. PACIFIC OCEAN, AGRIHAN ISLAND	330	-	0.00001	0.0000		TAMAES
N. PACIFIC OCEAN, AGRIHAN ISLAND	OCE	_	0.0000	0.0000		TABARZ
M. PACIFIC OCEAN	300		0.00002	0.0000		TAMAR
N. PACIFIC OCEAN	320	~	0.0003	000000		TABAR2
NORTHMEST PACIFIC OCEAN	0CE	-	0.0000	0-0000		TAMABO
NORTHWEST PACIFIC OCEAN	966		0.00014	0.0000		TAMAN
NORTHMEST PACIFIC OCEAN	OCE	_	0.00023	0-0000		TAMA
PACIFIC	OCE	-	0.00008	000000		TARRED
PACIFIC	300	_	0.00015	0.0000		TAMASE
PACIFIC	300		60000*0	0.0000		TAMABO
PACIFIC	300	_	0.00011	0.0000		TARABO
PACIFIC	33		0.00011	0.0000		TAMAGO
PACIFIC	OCE	_	0.00016	0.0000		TAMABO
PACIFIC	OCE	_	90000-0	0.0000		TANABO
PACIFIC	33		90000	0,0000		TANKED
PACIFIC	330		0.0000	0.0000		TAKABO
PACIFIC	300		0.0000	0.0000		TAMABO
PACIFIC	OCE	-	0.00077	0.0000		TAMASO
PACIFIC	300 E	~	0.00135	0.0000		TAMASO
PACIFIC	OCE.	-	0.00094	0.0000		TAMABO
PACIFIC	90E	_	0.00116	0.00000		TAMABO
PACIFIC	300	_	0.00078	0.0000		TAIMBO
RURINGES! PALIFIC UCEAN	330	_	0.00072	0.0000		TAKABO

Table C-18. (Continued)

•	Hater). 0	Repor	Reported values (119/L)	٧٤)	
Location	type	samples	Average	Hax issue	Comments	Reference
NORTHMEST PACIFIC OCEAN	90E	-	96000"0	0.0000		TAMAGO
MORTHWEST PACIFIC OCEAN	OCE	~ -	0.00052	0.0000		TAMARO
MORTHMEST PACIFIC GCEAN	OCE		0.00022	00000		TARABO
NORTHMEST PACIFIC OCEAN	OCE	-	0.00027	0.0000		TARABO
	OCE	-	0.00020	000000		TAWS
PACIFIC	OCE	_	0.00027	0.0000		TAMARO
	906	-	0.00026	0.0000		TAMABO
	300 8	,	0.00027	0.0000		TAMARO
	9ĊE	-	0.00002	0.00000		TAMA80
MORTHIEST PACIFIC OCEAN	9CE	,	0.00002	0.0000		TAMASO
PACIFIC	0 CE	-	0.00005	00000-0		TANABO
	330		0.00075	0.0000		TAMABO
PACIFIC	906	_	0.00117	0.0000		144480
HORTHMEST PACIFIC OCEAN	OCE	~	0.00031	0.00000		TANABO
MORTHMEST PACIFIC OCEAN	OCE	-	0.00025	0.0000		TAMABO
NORTHWEST PACIFIC OCEAN	OCE	_	0.00048	0.0000		TAMABO
RHODESIA, LAKE MCILMAINE	LAK	_	0.0000	0.0000		GRE 1788
REP. S. AFRICA, TRANSVAM, HARTBEESPOORT DAM	LÆ	-	0.10000	0.0000		6.95177
REP. S. AFRICA, CAPE PROVINCE, VOELVLET DAN	LAK	-	0000000	0.0000		CRE 177
	RIV	65	0.00050	0.00100		VAM078
SHEDEN	OCE	-	0.0000	000000	d. 1	0STE77
OF SWEDEN, HAND BIGHT AREA,	30CE	_	0.00021	0.0000	` •	051777
OF SHEDEN, HAND BIGHT	0CE	guer,	00000-0	0.0000	9 . 9	OSTE77
OF SWEDEN, HAND BIGHT AREA, BALTIC	OCE		0.0000.0	0.0000	φ,	051677
OF SMEDEN, HAND BIGHT AREA, BALTIC	OCE		0.000.0	0.0000	e	0STE77
OF SHEDEN, HAND	300 00E		0.0000	0.00000	P	0.STF 77
OF SHEDEN, HAND BIGHT AREA, BALTIC	OCE	_	00000-0	0.0000	d ,	OSTE77
SOUTH OF SMEUER, HANG BIGHT AREA, BALTIC SEA	9CE	,	0.0000	0.00000	4.0	OSTE??

Table C-18. (Continued)

×*	Water	No. of	Rep	Reported values (1991)	g(1)	
Location	type	samples .	Average	Max inus	Comments	Reference
TACHAN CEA						
	3	•	0.0000	000000		TAMA2
LASTIN SCA	30	-	0.00002	0.0000		TANAGO
TURKET, LOKER SETHAN DELTA	E SC	m	70,00000	420.00000		C18605
TURKEY, LONER SEYHAN DELTA	DRM	, ~	20 00000	90000		700017
TURKEY, LOWER SEYHAN DELTA	2	•	000000	0000.00 20 20 20 20 20 20 20 20 20 20 20 20 2		CIMMEZ
TURKEY, I DIER CEYNAM DEI TA		,		anno-oci		CIMEZ
TIBERY : Auto cresses per 12	5	-	20,00000	0.0000		C111182
HORNEY, LOWER SETTING UELLA			30,00000	00000-0		C110482
Comments where the sall selections of sall selections	LK		0.30000	0.0000		V. 4.55.5
UGANDA, KAGMARA LAKE, KYDGA OR SALISBURY	LAK		0.80000	0.0000		7/8355
UGARDA, BUGORDO LAKE, KYOGA OR SALISBURY	Ľ¥	-	0.60000			reast.
UGAKDA, MAMSAGALI LAKE, KYOGA DP. SALISBURY	I AK				•	NAME OF THE PERSON OF THE PERS
USA, MISSISSIPPI, MISSISSIPPI RIVER) o	٠ پر	90000	00000	9	25.674
INCA ATI ARTIC OCEAN	ALT	S.	0.00230	9.0000		61AIT6
ISA BROTE AT ANTIC OCCAM	90E	e	0.0000	0.0000	6 , 0	30M76
1154 MONTH AT AND A COLUMN	36	•	0.0000	0.0000	9,0	JONA 76
USA, MUKITA ALLAMILIC ULLAN	300	u	00000-0	0.0000	, p	JOHA76
•	3	•	0.0000	0.0000	7.4	308476
_	330	-	000000	0.0000	, o	JUNA 76
	30 0CE	_	0.0000	0.0000	, .	ACAMON.
	33		0.0000	0,0000		MAZ.
	30 0CE	,	0.0000	0.0000		May 76
USA, MEM YORK, OLCOIT, LAKE ONTARIO	K	a	0,00460	0.0000	•	
USA MEM TURK, KUCHESIER, LAKE ONTARIO	LK	w	0.00230	0,0000		C 1 100
USA, MORTH ATLANTIC OCEAN	330	-	000000	0.0000	6	TOWA 76
USA MONTH ALLANIIC ULLAN	30 0 0 1	-	0.0000	0.0000	. 6	JONA 76
USA, RUKIN AILANIIC UCEAN	OCE	-	0.0000	0.0000		MAA76
USA LAMENTA LAKE UNITARIO	ראג	v	0.00650	0.0000	· •	20,110
USA, REM TUKK, USHEGO, LAKE CHITARIO	Ĕ	e	0.01280	0,0000		M 179
USA, MANIN AILANIIL ULLAN	900	_	0-0000	0.0000	9,0	JOHA 76
) • •	

Table C-18. (Continued)

	;		Repor	Reported values (119/L)	91.)	
Location	Nater type ^a	No. of samples.	Average	Max faces	Comments	Reference
USA, NORTH ATLANTIC OCEAN	330		0.0000	0.0000	d. b	308976
USA, MORTH ATLANTIC OCEAN	30	_	0.0000	0.0000	. 0	30mA76
USA, MORTH ATLANTIC OCEAN	OCE	,	0.00000	0.0000	D	JOHA76
USA, MORTH ATLANTIC OCEAN	330		0.0000	0.0000	d . 0	JOHA76
USA, NORTH ATLANTIC OCEAN	300	_	0.0000	0.0000	4.	JOHA76
USA, NORTH ATLANTIC OCEAN	330	_	0.0000	0.0000	, p	JOHA 76
USA, MORTH ATLANTIC OCEAN	300	,	0.0000	00000-0	P. T	JOHA76
USA, MORTH ATLANTIC OCEAN	33		0.0000	0.0000	d. o	30M76
USA, MORTH ATLANTIC OCEAN	OCE.		00000-0	00000-0	Q	308476
USA, NORTH ATLANTIC OCEAN	. 330	_	0.0000	0.0000	9	JONA 76
UNITED STATES	u	_	0.0000	0000000		JOHA76
USA, NORTH ATLANTIC OCEAN	300	_	0.0000	0.0000	6	JONA76
HORTH	300	-	0.0000	0.0000	P	30MA76
NORTH ATLANTIC	9CE		0.0000	0.0000	d , a	JOHA76
NORTH ATLANTIC	338	-	0.0000	0,0000	P.	JOHA76
NORTH ATLANTIC	36	-	0.0000	0.0000	d, o	J08A76
MORTH ATLANTIC	300	-	0.0000	000000	d.	JOHA76
MORTH ATLANTIC	30	<u></u>	0.0000	0.0000	6 , 9	JOHA 75
NORTH ATLANTIC	300	,	0.0000	00000*0		JOHN 76
MORTH ATLANTIC	300	_	0.0000	0.0000	d, 0	J08476
HORTH ATLANTIC	330		0.0000	00000-0	4.	JOHA76
RORTH	OCE	-	0.00000	0.0000	ė,	JOHA76
MORTH ATLANTIC	300	_	0.0000	0.0000	. .	JOHA76
USA, MORTH ATLANTIC OCEAN	90E	,-	0.0000	0.0000	ď, o	30MA76
	OCE		0.0000	0.0000	d, p	JOHA76
	300		0.0000	0.0000	d.	30MA76
	300 00E	-	0.0000	0,0000	P. T.	JONA 76
USA, ALABAM, HARTSELLE, FLINT CREEK	CRK	13	0.0000	0.0000	70	N I CHGA

Table C-18. (Continued)

type ² SSWED RNF GW CIS CIS CIS CIS CIS ddy; PND = pond; RES = reservoir; noff; SW = surface water; TAP = tap water ater from the river.		1	3	Repor	Reported values (119/L)	(3	
Fig. 1 VALEY WATERSHED RNF 6 2.80000 4, 5	Location	type	samples .	Average	Nex faun	Coments	Reference
### 22 0.0000 0.0000 d s S	USA, MISSISSIPPI VALLEY WATERSHED	RRF	•	2.80000	5.4000		MILES.
DS, ST. THOMS DS, ST. JOHN DS, ST. JOHN CIS 14 0.00000 0.00000 d 15 Est BRK = bractish; CAN = canal; CIS = cistern; creet; DRN = default of the certion limits occasion sampled: 314 creet; DRN = default of the sampled: 314 waste water. waste water. In of pack ice. and c.n. O Jun. In int < 1 mg/L. Islant < 1 mg/L. Islant < 1 mg/L. Islant < 2 mg/L. Islant < 3 mg/L. Islant < 3 mg/L. Islant < 3 mg/L. Islant < 3 mg/L. Islant < 4 mg/L. Islant < 5.0 pob.	USA, CALIFORNIA	35	22	0.0000	0.0000	6	MADORZ
bS, ST. JOHN Es: BBK = brackish; CAN = canal; CIS = cistern; creek; DRN = drainage; GN = ground water; LAK = labe; cceat; DRN = canal; CIS = cistern; cceat; DRN = drainage; GN = ground water; LAK = labe; waste water. waste water. waste water. In of pack fce. an in of pack fce. an in drinking water from the river. Ilant = 1 mg/L. Ilant = 4 mg/L. Ilant = 4 mg/L. Ilant = 3.0 mb. O mm. Base in drinking water from the river. Ilant = 5.0 mb. O m. In in the common in the maternal in the matern	VIRGIN ISLANDS, ST. THOMS	CIS	15	0.0000	0,0000	· •	
es: BRK = brackish; CAN = canal; CIS = cistern; creek; DRN = drainage; GW = ground water; LAK = late; river; RMF = runoff; SW = surface water; TAP = tap water; waste water. in of pack ice. ed in drinking water from the river. limit <1 mg/L. limit <1 mg/L. limit =4 mg/L. s m.	VIRGIN ISLANDS, ST. JOHN	CIS	4	0.0000	0.0000	7	1.611072
creek; DRN = drainage; GW = ground water; LAK = lake; ocean; PAD = paddy; PND = pond; RES = reservoir; river; RNF = runoff; SW = surface water; TAP = tap water; waste water. in of pack ice. ed. cn. cn. cn. d. imit < 1 ng/L. limit = 4 ng/L. limit = 4 ng/L. m.	* Water types: BRK = brackish: CAM = cana	l): CIS = cistera:		Statictice			
ocean; PAD = paddy; PND = pond; RES = reservoir; river; RNF = runoff; SN = surface water; TAP = tap water; in of pack ice. cn. cn. cn. d. m. ed in drinking water from the river. limit < l ng/L. limit = 4 ng/L. limit = 4 ng/L. limit = 6 nc. co m. m. limit = 5.0 pob.	CRK = creek; DRM = drainage; GW = gr		25	Number of	locations same	oled: 314	
river; RNF = runoff; SN = surface water; TAP = tap water; waste water. in of pack ice. ed. cm. cm. ed in drinking water from the river. limit <1 mg/L. limit = 4 mg/L. 5 m. m. m. m. m. e. o m. m. e. o m. e. o m. e. o m. limit = 5.0 pob.	OCE = ocean; PAD = paddy; PND = pond		•	Number of	samples within	a detection 18	mite: 184
in of pack ice. ed. cm. m. m. find drinking water from the river. limit <1 mg/L. limit = 4 mg/L. 5 m. m. m. m. limit = 5.0 pob.	RIV = river; RMF = runoff; SW = surf	ace water: TAP = tap w	ater;	Hean of th	e highest rep	orted values:	11.95023
in of pack ice. Standard deviation: 115.17539 Hean of the natural logarithms: Cn. Cp. O jun. m. Hand deviation of the natural logarithms: 4.15366 Innit < 1 ng/L. Innit < 4 ng/L. Innit < 4 ng/L. Innit < 5.0 nob. Innit = 5.0 nob.	WST = waste water.		•	Highest of	the reported	values: 1500	00000
in of pack ice. Hean of the natural logarithms: Standard deviation of the natural logarithms: CB. CB. Cp. Imit = 4 ng/L. Imit = 4 ng/L. Imit = 4 ng/L. Imit = 5.0 ppb.	b Under Ice.			Standard d	eviation: 119		
Standard deviation of the materral logarithms: 4.15366 water from the river.	^c Outer margin of pack ice.			Hean of th	e natural log		5110
cm. m. ed in drinking water from the river. limit <1 mg/L. limit = 4 mg/L. 5 m. m. m. m. 0 m. lim. 1imit = 5.0 ppb.	d Not detected.			Standard d	eviation of ti		
water from the river.	e Uncertain.			logar (the	4.15.266		
9 Depth = 150 µm. h Depth = 33 m. i Not detected in drinking water from the river. J Detection limit <1 mg/L. k Detection limit = 4 mg/L. Depth = 0.5 m. n Depth = 4 m. Depth = 50 m. P Depth = 50 m. R Depth = 50 m. P Depth = 50 m. P Depth = 50 m.	f Depth = 30 cm.						
h Depth = 33 m. Not detected in drinking water from the river. Detection limit <1 mg/L. R Detection limit = 4 mg/L. Depth = 0.5 m. Depth = 4 m. Depth = 4 m. Depth = 50 m. P Depth = 50 m. P Depth = 50 m. P Depth = 500 m. P Depth = 500 m.	9 Depth = 150 µm.						
Not detected in drinking water from the river. Joetection limit <1 mg/L. k Detection limit = 4 mg/L. Depth = 0.5 m. Depth = 4 m. Depth = 0 m. Depth = 50 m. Depth = 50 m. Depth = 500 m. Depth = 500 m.	h Depth = 33 m.						
J Detection limit <1 mg/L. ** Detection limit = 4 mg/L. ** Depth = 0.5 m. ** Depth = 0.5 m. ** Depth = 20.0 m. ** Depth = 4 m. ** Depth = 50 m. ** Depth = 500 m. ** Depth = 1000 m.	1 Not detected in drinking water from the r	fver.					
W Detection limit = 4 mg/L. Depth = 0.5 m. Depth = 20.0 m. Depth = 4 m. Depth = 0 m. Depth = 50 m. Obeth = 50 m. The Depth = 1000 m. Solution limit = 5.0 bob.	J Detection limit < 1 ng/L.						
Depth = 0.5 m. Depth = 20.0 m. Depth = 4 m. Depth = 0 m. Depth = 50 m. Oepth = 50 m. Depth = 1000 m. Depth = 1000 m.	R Detection limit = 4 mg/L.						
# Depth = 20.0 m. # Depth = 4 m. O Depth = 0 m. P Depth = 50 m. T Depth = 1000 m. T Depth = 1000 m. S Detection limit = 5.0 bob.	1 Depth = 0.5 m.						
Depth = 4 m. O Depth = 0 m. P Depth = 50 m. P Depth = 500 m. T Depth = 1000 m. S Detection limit = 5.0 mb.	# Depth # 20.0 m.						
0 Depth = 0 m. P Depth = 50 m. Q Depth = 500 m. T Depth = 1000 m. S Detection limit = 5.0 bb.	n Depth = 4 m.						
P Depth = 50 m. 9 Depth = 500 m. 7 Depth = 1000 m. 9 Detection limit = 5.0 Dob.	O Depth = 0 m.						
<pre>q Depth = 500 m. Depth = 1000 m. Detection limit = 5.0 pob.</pre>	P Depth = 50 m.						
The peth = 1000 m. Sheetetion limit = 5.0 pub.	9 Depth = 500 m.						
S Detection limit = 5.0 ppb.	" Depth = 1000 m.						
	S Detection limit = 5.0 ppb.						

Table C-19. Monitoring data for diazinon in water.

· ·	Kater	9-0 7-0 7-1	æ	Reported values (µg/L)	(J/6)	
Location	type	samples .	Average	Nax inus	Coments	Reference
METHERLANDS/GERMANY/SUITZERLAND, RHINE RIVER	RIV	·.	0.02000	0.0000		CREV72
HE I HENLANDS/GERMANY/SMITZERLAND, RHINE RIVER	» [×	۵	0.05000	0.0000		CDCV72
COAST LAND STANDON	PAD	8	0.0000	00000009		TE 1809
TOWEL PLANE KINNEKE!	Ľ¥	23	0.0000	0.0000	D , 0	K BMA 74
COACL LAST STREET	RIV	9	0.0000	0.0000	9	KAHA74
TOACL, LAKE KIRNERET WATERUNED	DR.	m	0.0000	0.0000	1 0	K AMA 74
I SPACE, JUKUMIR RIVER (LUMER)	RIV		0-0000	0.0000	, T	KAHA74
I TOBEL WICHAM OFFICERS	RES		0.0000	0.0000	, O	KAHA74
I SOAF! JOHAN DESCRIPING	RES	gues.	0.0000.0	00000"0	C, d	KAHA74
INC. CA ISTORIA	RES		0.0000	0.0000	C, &	KAHA74
	3	27	0.0000	0.0000	d, e	M0082

RIV = river; RNF = rumoff; SW = surface water; TAP = tap water; CRK = creek; DRM = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PNC = pond; RES = reservair; * Water types: BRK = brackish; CAN = canal; CIS = cistern;

WST = waste water.

C Detection limit <1 ng/L. b Uncertain.

e Detection limit = 5.0 ppb. d Not detected.

Mean of the highest reported values: 20.02333 Humber of samples within detection 15mits: 3 Highest of the reported values: 60.00000 Mean of the natural logarithms: -0.93779 Number of locations sampled: 11 Standard deviation: 34.62081

Statistics:

Standard deviation of the natural logarithms: 4.38199

Table C-20. Monitoring in vater.

			Repor	Reported values (ug/L)	(Z	
	Water	No. of				
Location	type	samples	Average	Nax imum	Coments	Reference
BELGIUM, EYSDEM, RIVER MEUSE	RIV	٩	0.01000	0.03000		NEGA78
CANADA, HAMILTON, LAKE ONTARIO	רא	٥	0.00310	0.0000	U	WAL 79
CANADA, TORONTO, LAKE ONTARIO	LAK	م	0.00350	0.0000		MALL 79
CANADA/USA, MINGARA RIVER	RIV	۵	0.00210	0.0000		WEL79
CANADA, COLBURG, LAKE ONTARIO	LAK	۵	0.0000	0.0000		WIL79
EGYPT, EL-SALAAM	75	_	0.0000	0.0000	7	E1.2A83
EGYPT, EL-SALMM	75	-	0.0000	0.0000	79	EL 2A83
EGYPT, EL-SALAAM	75		0.0000	0.0000	70	EL 2A83
EGYPT, EL-SALAAN	i i i	_	0.0000	0.0000	•	EL 2A83
EGYPT, EL-SALASH	75	_	0.3000	0.0000		ELZA83
EGYPT, EL-SALAM	R9	_	0.0000	0.0000	70	EL 2A83
EGYPT, EL-SALAM	P 9	_	0.0000	0.0000	79	EL 2A83
EGYPT, EL-SALAAN	M9	_	000000	0.0000	79	EL.2A83
EGYPT, EL-SALAAM	N9	 -	0.0000	0.0000	70	EL 2A83
EGYPT, EL-SALAAN	M9	_	0.31000	0.0000		EL 2A83
EGYPT, EL-SALAAM	N9	pen	0.0000	0.0000	פי	E1.2A83
EGYPT, EL-SALAM	79	_	0.0000	0.0000	70	EL 2A83
EGYPT, EL-SALAAN	R9	_	0.0000	0.0000	•	EL ZAB3
FRANCE, NEDITERRANEAN SEA, 10 MI. FROM COAST	300	58	0.02600	0.07400		HE ST83
FRANCE, MEDITERRANEAN SEA, LITTORAL PONOS	PRO	89	0.0000	0.0000	70	HEST83
FED. REPUBLIC OF GERMANY, HAMBURG, ELBE RIVER	RIV	12	0.0000	0.0000	70	HER 272
FED. REPUBLIC OF GERMANY, LAUEMBURG, ELBE RIVER	RIV	-	0.0000	000000	70	HER 272
REPUBLIC OF	RIV	55	0.0000	0.04500		HER272
FED. REPUBLIC OF GERMANY, ACHIN, MESER RIVER	RIV	pris	0.0000	0.0000	70	HER 272
FED. REPUBLIC OF GERMANY, DUSSELDORF, RHINE RIVER	RIV	=	0.0000	0.0000	7	HER272
REPUBLIC OF GERMANY.	RIV	15	0.0000	0.0000	•	HER 272
REPUBLIC OF	RIV	_	0.0000	0.0000	70	HER272
FED. REPUBLIC OF GERMANY ST. GAM BHIME BINED	210	_			•	20000

Table C-20. (Continued)

		To test	, c	Rep	Reported values (1991)	٦)	
REPUBLIC OF GERWANY, OCSTRICH, RHINE RIVER RIY 1 0.00000 0 REPUBLIC OF GERWANY, U.M., DAWIDE RIVER RIY 15 0.00000 0.00000 d REPUBLIC OF GERWANY, U.M., DAWIDE RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWANY, RENDSGING, MORDOSTSCECKAMI, RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWANY, RENDSGING, RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWANY, RENDSGING, RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWANY, BANCHER, RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWANY, ADLISHICANAL, RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWANY, ALLIER RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWANY, ALLER RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWANY, ALLER RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWANY,	Location	type	samples .	Average	Maximum	Connents	Reference
REPUBLIC OF GERWAY, JOCHENSTEIN, DANUBE RIVER RIV 15 0.00000 0.00000 d REPUBLIC OF GERWAY, JACHENSTEIN, DANUBE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, JACALSTADT, DANUBE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, RENDSBIRG, MARDER RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, DALISBIRG, RURE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, DALISBIRG, RURE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, DALISBIRG, RURE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, DALIBERIA, MAIN RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, LANGELLE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, LANGER, REJUER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, LANGER, REGUITZ RIVER RIV 1 0.00000 0.00000 d <td>REPUBLIC OF GERMANY, DESTRICH, RHINE RIVE</td> <td>N N</td> <td>,</td> <td>0.0000</td> <td>0.0000</td> <td></td> <td>H\$B772</td>	REPUBLIC OF GERMANY, DESTRICH, RHINE RIVE	N N	,	0.0000	0.0000		H\$B772
REPUBLIC OF GERMANY, LLM, DANIBE RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, LLM, DANIBE RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, GEISIMEM, MRIDERAMAL RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, REMISSARIA, MITTELLAMICKAMAL RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, RALIBAGE, RUBE RIVER RIV 1 0.00000 0.00000 0.00000 REPUBLIC OF GERMANY, ACHIBAGH, LAHIR RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERMANY, EACHBACH, LAHIR RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERMANY, EACHBACH, LAHIR RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERMANY, HOLDELBERG, MECKAR RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERMANY, HOLDELBERG, MECKAR RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERMANY, HOLDELBERG, MECKAR RIVER RIV 1 0.00000	REPUBLIC OF GERMANY, JOCHENSTEIN, DANUBE	RIV	15	0.0000	0.000	· •	HED 772
REPUBLIC OF GENNANT, INGOLSTADT, DANUBE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, REKOSBURG, MORDOSTSEEKANAL RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, REKOSBURG, MORDOSTSEEKANAL RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, RIVER RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, RIVER RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, RICHARGACH, LAHIR RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, ROBERZ, MOSELLE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, ROBERZ, MOSELLE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, ROBERZ, MOSELLE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, ROBERZ, MOSELLE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, ROBERZ, LAME RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, LAME RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, LAME RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, LAME RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, LAME RIVER RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, LAME RIVER RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, LAME RIVER RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, LAME RIVER RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANT, RILLAMER, REGAITZ RIVER RIV 1 1 0.00000 0.00000 d REPUBLIC OF GENNANT, RILLAMER, REGAITZ RIVER RIV 1 1 0.00000 0.00000 d REPUBLIC OF GENNANT, RILLAMER, REGAITZ RIVER RIV 1 1 0.00000 0.00000 d REPUBLIC OF GENNANT, RILLAMER, RIVER RIVER RIV 1 1 0.00000 0.00000 d REPUBLIC OF GENNANT, RILLAMER, RIVER	REPUBLIC OF	RIV	_	0.0000	0.0000	ם כ	HERZ72
REPUBLIC OF GERMANY, GEISINGEN, DANIBE RIVER REPUBLIC OF GERMANY, RENISSBRIG, MORDOSISEKAMAL REPUBLIC OF GERMANY, RENISSBRIG, MORDOSISEKAMAL REPUBLIC OF GERMANY, RENIEW, ENS RIVER REPUBLIC OF GERMANY, SIGBURG, RUHR RIVER REPUBLIC OF GERMANY, SIGBURG, SIGE RIVER REPUBLIC OF GERMANY, ROUGHER, MOSTILE RIVER REPUBLIC OF GERMANY, REIDERER, MOSTINE RIVER REPUBLIC OF GERMANY, REIDERMANG, SAMERIZ RIVER RIVY II 0.00000 0.00000 d. REPUBLIC OF GERMANY, MOSTINE RIVER RIVY II 0.00000 0.00000 d. REPUBLIC OF GERMANY, MOSTINE RIVER RIVY II 0.00000 0.00000 d. REPUBLIC OF GERMANY, MOSTINE RIVER RIVY II 0.00000 0.00000 d. REPUBLIC OF GERMANY RIVER RIVER RIVY II 0.00000 0.00000 d. REPUBLIC OF GERMANY RIVER RIYY II 0.00000 0.00000 d. REPUBLIC OF GERMANY RIVER RIYY II 0.00000 0.00000 d. RESIDENT WIRERET RIVY II 0.00000 0.00000 0.00000 0.00000 d. RESIDENT RIVER RIY RIVER IN D.00000 0.0000	REPUBLIC OF GERMANY, INGOLSTADT, DANUSE 1	RIV		0.0000	0,0000	75	HFR772
REPUBLIC OF GERWANT, REINOSBURG, HORDOSTSEEKAMAL RIV 1 0.00000 0.00000 d REPUBLIC OF GERWANT, REINE, EMS RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWANT, REINE, EMS RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWANT, SIGBRIG, EMR RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWANT, SIGBRIG, SHAR RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWANT, FACHBACH, LAMIN RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWANT, FACHBACH, LAMIN RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWANT, RAIDERSKG, MCKAR RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWANT, BELDELSRG, MCKAR RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWANT, BELDELSRG, MCKAR RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWANT, BELINEGRIA, MARIEL RIVER RIY 1 0.00000 0.00000	REPUBLIC OF GERMANY, GEISINGEN, DANUBE RI	RIV	_	0,0000	0.0000	5	HER272
REPUBLIC OF GERWAY, BRANSCHE, MITTELLAMDKAMAL RIV 1 0.00000 0 REPUBLIC OF GERWAY, RHEIME, EMS RIVER RIV 1 0.00000 0.00000 0 REPUBLIC OF GERWAY, SIGBARG, SIGE RIVER RIV 1 0.00000 0.00000 0 REPUBLIC OF GERWAY, SIGBARG, SIGE RIVER RIV 1 0.00000 0.00000 0 REPUBLIC OF GERWAY, SIGBARG, MINRIVER RIV 1 0.00000 0.00000 0 REPUBLIC OF GERWAY, SIGBARG, MINRIVER RIV 1 0.00000 0.00000 0 REPUBLIC OF GERWAY, BAD BERRECK, MAIN RIVER RIV 1 0.00000 0.00000 0 REPUBLIC OF GERWAY, LAMBERIN, REGULT RIVER RIV 1 0.00000 0.00000 0 REPUBLIC OF GERWAY, HOF, SAALE RIVER RIV 1 0.00000 0.00000 0 REPUBLIC OF GERWAY, HOF, SAALE RIVER RIV 1 0.00000 0.00000 0 REPUBLIC OF GERWAY, HOF, SAALE RIVER RIV 1 0.00000 0.00000 0.00000 EL, JAKE	REPUBLIC OF SERMANT.	RIV		0.0000	0.0000	10	HFR772
REPUBLIC OF GENAMY, RIEIME, ENS RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAYY, SIESBURG, SIGE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAYY, SIESBURG, SIGE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAYY, SIESBURG, SIGE RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWAYY, ROBEILE, MAIN RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWAYY, ROBEILE, MAIN RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWAYY, ROBEILE, MAIN RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWAYY, HOF SAME RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWAYY, HOF SAME RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWAYY, HOF SAME RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERWAYY, HOF SAME RIVER RIY 1 0.00000 0.00000 d <	REPUBLIC OF GERMANY, BRANSCHE, MITTELLANI	RIV	~	0.0000	0.0000	· TC	HER272
REPUBLIC OF GENNANY, DUISBURG, RUHR RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANY, SIEGRAMAY, SIEGRAMAN, ROBERCE, MAIN RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENNANY, ROBERCE, MAIN RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GENNANY, ROBERCE, MAIN RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GENNANY, HIGGEBERG, MECKAR RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GENNANY, HIGGEBERG, MECKAR RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GENNANY, HOF, SALE RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GENNANY, HOF, SALE RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GENNANY, HOF, SALE RIVER RIY 1 0.00000 0.00000 d RESIGNANY, HOF, SALE RIVER RIY 15 0.00000 0.00000 d d EL, LAKE KIMMERT MARIV	REPUBLIC OF GERMANY,	RIV	_	0.0000	0.0000	70	HER772
REPUBLIC OF GERWAY, SIEGBURG, SIEG RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, FACHBACH, LAHN RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, KOBLERZ, MOSELLE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, KOBLERZ, MOSELLE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, BADD BERRECK, MAIN RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, HIDGLBERG, MECKATZ RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, LANGEMARGEN, LAKE CONSTANCE LAK 1 0.00000 0.00000 d REPUBLIC OF GERWAY, LANGEMARGEN, REGALTZ RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, BOT SALE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERWAY, BOT SALE RIVER RIV 15 0.00000 0.00000 0.00000 G.S. BERLIN-LICHTERFELDE, TELTOWAML RIV 15 0.00000 0.00000 <td< td=""><td>REPUBLIC OF GERMANY,</td><td>RIV</td><td></td><td>0.0000</td><td>0.0000</td><td>•</td><td>HER272</td></td<>	REPUBLIC OF GERMANY,	RIV		0.0000	0.0000	•	HER272
REPUBLIC OF GERMANY, FACHBACH, LAHM RIVER RIV 1 0.00000 0 REPUBLIC OF GERMANY, KOBLERZ, MOSELLE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERMANY, RAUMHEIM, MAIN RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERMANY, REDELBERG, MCKAR RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERMANY, HEIDELBERG, MCKAR RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERMANY, HEIDELBERG, LAKE CONSTANCE LAK 1 0.00000 0.00000 d REPUBLIC OF GERMANY, ERLANGEN, REGALIZ RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GERMANY, BERLIN-GATOM, HAVEL RIVER RIV 15 0.00000 0.00000 d REPUBLIC OF GERMANY, BERLIN-GATOM, HAVEL RIVER RIV 15 0.00000 0.00000 d RESALIN-LICHTERFELLOR, TELTOMKAMAL RIV 15 0.00000 0.00000 d e EL, LAKE KINNERET BATOM RIVER RIV 1 0.00000 0.00000<	REPUBLIC OF GERMANY,	RIV	_	0.0000	0.0000	70	HER272
REPUBLIC OF GENAMY, KOBLERZ, MOSELLE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENAMY, RAUMHEIM, MAIN RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENAMY, BAD BERNECK, MAIN RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENAMY, HIDELBERG, MCCAR RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENAMY, HIDELBERG, RECAITZ RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENAMY, HOLE SAME RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENAMY, HOLE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENAMY, HOLE RIVER RIV 1 0.00000 0.00000 d REPUBLIC OF GENAMY, BEALIN-GATOW, HAVEL RIVER RIV 15 0.00000 0.00000 d REPUBLIC OF GENAMY, BEALIN-GATOW, HAVEL RIVER RIV 15 0.00000 0.00000 d EL, LAKE KIMMERT LAKE KIMMERT RIV 1 0.00000 0.00000 d	REPUBLIC OF GERMANY,	RIV	- -	0.0000	0.0000	79	HER 272
REPUBLIC OF GERMANY, RAUMHEIN, MAIN RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERMANY, BAD BERKECK, MAIN RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERMANY, HEIDELBERG, MECKAR RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERMANY, LANGENARGEN, LAKE CONSTANCE LAK 1 0.00000 0.00000 d REPUBLIC OF GERMANY, LANGENARGEN, REGALIZ RIVER RIY 1 0.00000 0.00000 d REPUBLIC OF GERMANY, BERLIN-GATOM, HAVEL RIVER RIY 15 0.00000 0.00000 d REPUBLIC OF GERMANY, BERLIN-GATOM, HAVEL RIVER RIY 15 0.00000 0.00000 d E., LAKE KIMMERT TELTOMCAMAL RIY 15 0.00000 0.00000 d EL, LAKE KIMMERT MATERSHED, DAN RIVER RIY 1 0.00000 0.00000 d e.f EL, LAKE KIMMERT MATERSHED RIY 1 0.00000 0.00000 0.00000 0.00000 0.00000 d.e EL, LAKE KIMMERT MAT	REPUBLIC OF SERMANY, KOBLENZ, MOSELLE RIV	RIV	_	0.0000	0.0000	•	HER772
IVER RIV 1 0.00000 0.00000 d RIVER RIV 1 0.00000 0.00000 d OWSTANCE LAK 1 0.00000 0.00000 d IVER RIV 1 0.00000 0.00000 d RIVER RIV 15 0.00000 0.00000 d RIVER RIV 15 0.00000 0.00000 d RIVER RIV 15 0.00000 0.00000 d RIVER RIV 1 0.00000 0.00000 d RIV 1 0.00000 0.00000 d, e FOUNT RIV 1 0.00000 0.00000 d, e RIV 1 0.00000 0.00000 d, e f RIV 1 0.00000 0.00000 d, e f RIV 1 0.00000 0.00000 d, e f RIV 1 0.00000 0.00000 <td>REPUBLIC OF GERMANY.</td> <td>RIY</td> <td>_</td> <td>0.0000</td> <td>0.0000</td> <td>7</td> <td>HER272</td>	REPUBLIC OF GERMANY.	RIY	_	0.0000	0.0000	7	HER272
RIVER RIV 1 0.00000 0.00000 d ONSTANCE LAK 1 0.00000 0.00000 d IVER RIV 1 0.00000 0.00000 d RIV 15 0.00000 0.00000 d RIV 15 0.00000 0.00000 d LAK 19 0.00000 0.00000 d, e FOUNT RIV 1 0.00000 0.00000 d, e	REPUBLIC OF	RIV	_	0.0000	0.0000	70	HFR772
ONSTANCE LAK 1 0.00000 0.00000 d IVER RIV 1 0.00000 0.00000 d RIV 15 0.00000 0.00000 d RIV 15 0.00000 0.00000 d RIV 19 0.00000 0.00000 d.e FOUNT RIV 1 0.00000 0.00000 d.e FOUNT RIV 1 0.00000 0.00000 d.e RIV 1 0.00000 0.00000 d.e f	REPUBLIC OF GERMANY,	RIV	_	0.0000	000000	•	HER 272
IVER RIV 1 0.00000 0.00000 d RIV 1 0.00000 0.00000 d RIV 15 0.00000 0.00000 d RIV 15 0.00000 0.00000 d LAK 19 0.00000 0.00000 d e FOUNT RIV 1 0.00000 0.00000 d e f RIV 1 0.00000 0.00000 0.00000 d e f RIV 1 0.00000 0.00000 d e f RIV 1 0.00000 0.00000 d e f RIV 1 0.00000 0.00000 d e f	REPUBLIC OF GERMANY,	Γ¥	_	0.0000	0.00000	70	HER772
RIVER RIV 1 0.00000 0.00000 d RIV 15 0.00000 0.00000 d RIV 15 0.00000 0.00000 d LAK 19 0.00000 0.00000 d, e FOUNT RIV 1 0.00000 0.00000 d, e RIV 1 0.00000 0.00000 d, e f, e BRN 3 0.00000 0.00000 d, e RIV 1 0.00000 0.00000 d, e	REPUBLIC OF GERMANY, ERLANGEN, REGNITZ RI	RIV	_	0.0000	0.0000	7	HER272
RIVER RIV 15 0.00000 0.00000 d RIV 15 0.00000 0.00000 d LAK 19 0.00000 0.00000 d, e FOUNT RIV 1 0.00000 0.00000 d, e RIV 1 0.00000 0.00000 d, e BRN 3 0.00000 0.00000 d, e RIV 1 0.00000 0.00000 d, e		RIV	_	0.0000	0.0000	7	HER272
RIV 15 0.00000 0.00000 d RIV b 0.00000 0.00000 d LAK 19 0.00000 0.00000 d e FRV 1 0.00000 0.00000 e f RIV 1 0.00000 0.00000 d e BRN 3 0.00000 0.00000 d e RIV 1 0.00000 0.00000 d e		RIV	15	0.0000	0.0000	•	HER172
FOUNT RIV b 0.00000 0.00000 d LAK 19 0.00000 0.00000 d RIV 1 0.000000 d RIV 1 0.000000 d RIV 1 0.000000 0.0000000 d R	F.K.G., BEMLIN-LICHTERFELDE, TELTOMKANAL	RIV	15	0.0000	0.0000	70	HFR772
FOUNT RIV 19 0.00000 0.00060 e d. e RiV 1 0.00000 0.00000 d. e f	INDOMESIA, JAKARTA, SAMMANG, SURABAYA	RIV	م	0.0000	0.0000	• •	PURM77
FOUNT RIV 1 0.00000 0.00000 d, e RIV 5 0.00000 0.00000 e, f RIV 1 0.00000 0.00000 d, e DRN 3 0.00000 0.00000 d, e	DAGEL, LAKE KINNERET	¥	6	0.0000	0.00060	e	KAHA74
JORDAN RIVER RIV 5 0.00000 0.00000 e, f NESHUSHIM RIVER RIV 1 0.00000 0.00000 d, e LAKE KINNERT MATERSHED DRN 3 0.00000 0.00000 d, e JORDAN RIVER (LOHER) RIV 1 0.00000 0.00000 d, e		RIV	,	0.0000	0.0000	d	KAHA74
NE.SHUSHIM RIVER LAKE KINNERET WATERSHED 300RDAN RIVER (LOMER) 4, e 300RDAN RIVER (LOMER) 4, e	DAMEL, JORDAN RIVER	Rīv	s	0.0000	0.0000		KAHA74
MED DRN 3 0.00000 0.00000 d, e	SAARL, MESHUSHIM RIVER	RIV	_	0.0000	0.0000		KAHA74
RIV 1 0.00000 0.00000 d. e	COACL CARE ALMEREL MAILENNED	æ æ	m	0.0000	0.0000	q ,	KAHA74
	ISWALL, SUKUMI RIYEK (LUMER)	RIV		0.0000	0.0000	d, e	KAHA74

Table C-20. (Continued)

VASUOR RESERVOIR RES 1 O.00000 O.00000 K1 SHOM RESERVOIR K1 SHOM RESERVOIR RES 1 0.00000 0.00000 K1 SHOM RESERVOIR K1 SHOM RESERVOIR MORTH RES 1 0.00000 0.00000 K1 SHOM RESERVOIR MORTH RES 1 0.00000 0.00000 0.00000 GEVAT RESERVOIR RESTROIR SOUTH RES 2 0.00000 0.00000 GEVAT RESERVOIR RESTROIR RES 1 0.00000 0.00000 CONSTAL AQUIFER GH 1 0.00000 0.00000 0.00000 CONSTAL AQUIFER GH 1 0.00000 0.00000 0.00000 CONSTAL AQUIFER GH 1 0.00000 0.00000		Water	No. of	Repor	Reported values (4g/L)	Ü	
KI SHOW RESERVOIR KES 1 0.00000	Location	type	samples	:	Maximum	Comments	Reference
KI SHOW RESERVOIR RES 1 0,00000 0 0,00000 0 0,00000							
KITSHOM RESERVOIR KITSHOM RESERVOIR KITSHOM RESERVOIR KITSHOM RESERVOIR KES 2 0.00000 KES 3 0.00000 KES 3 0.00000 KES 3 0.00000 KES 4 0.00000 GEVAT RESERVOIR KES 3 0.00000 GEVAT RESERVOIR KES 3 0.00000 COASTAL AQUIFER COAS	XXXXX	RES	_	00000	0.0000	d, e	KAHA74
KESSWOIR MORTH KESTVOIR, MORTH KESSWOIR, MORTH KESSWOIR, SOUTH RES GEVAT RESERVOIR ENTRANCE GEVAT RESERVOIR ENTRANCE GEVAT RESERVOIR ENTRANCE COASTAL AQUIFER COASTAL AQUIF	K1250	RES	 -	0.00020	0.0000	v	KAHA74
KISHOM RESERVOIR, SOUTH	, KI SHON RESERVOIR,	RES	-	0.0000	0.0000	d, e	KAHA74
GEVAT RESERVOIR RES 3 0.00000 GEVAT RESERVOIR RES 4 0.00000 CONSTAL AQUIFER 6M 1 0.00000 COASTAL AQUIFER R.	KISHON RESERVOIR,	RES	2	0.0000	0.00100	•	KAHA74
COASTAL AQUIFER RES 4 0.00000 ZOHAR RESERVOIR RES 1 0.00000 COASTAL AQUIFER GM		RES	m	00000-0	0.00500	·	KAHA74
ZOMAR RESERVOIR RES 1 0.00060 COASTAL AQUIFER GM 1 0.00000 COASTAL AQUIFER RIV RIV 1 0.00000 COASTAL AQUIFER COASTAL AQUIFER RIV 1 0.00000		RES	•	0.0000	0.00110	w	KAHA74
COASTAL AQUIFER GM 1 0.00000 COASTAL AQUIFER GM <t< td=""><td>I SRAEL, ZOHAR RESERVOIR</td><td>RES</td><td>_</td><td>090000</td><td>0.0000</td><td>v</td><td>KAHA74</td></t<>	I SRAEL, ZOHAR RESERVOIR	RES	_	090000	0.0000	v	KAHA74
COASTAL AQUIFER COASTAL AQUIFE	I SRAEL, COASTAL AQUIFER	N 9	_	0.0000	0.0000	70	LAHA74
COASTAL AQUIFER GM 1 0.00000 COASTAL AQUIFER RIV 18 0.00000 COASTAL AQUIFER GM 1 0.00000 COASTAL AQUIFER RIV 18 0.00000 COASTAL AQUIFER SM 5 0.00000 MAKURU MATIOMAL PARK, LAKE MAKURU		75 9	,	000000	0.0000	79	LAWA74
COASTAL AQUIFER COASTAL ADUIFER COASTAL ADUIFER COASTAL ADUIFER COASTAL ADUIFER COASTAL ADUIFER COASTAL ADUIFER COASTAL ADUIFE	COASTAL	19	-	0.0000	0.0000	70	LAHA74
COASTAL AQUIFER GW 1 0.00000 COASTAL AQUIFER RIV 18 0.00000 PO RIVER RIV 18 0.00000 ADIGE RIVER SW 5 0.00000 ADIGE RIVER SW 5 0.00000 COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN SW 5 0.00000 MAKURU WATIOMAL PARK, LAKE WAKURU RIV 11 0.00000 LAKE NAKURU LAKE WAKURU LAK b 0.00000 LAKE MAKURU LAK b 0.00000 LAKE MAKURU B 0.00000	. COASTAL	N9	_	0.00000	0.0000	•	LAHA74
COASTAL AQUIFER COASTAL ACUIFER COASTAL ACUIFE	, CONSTAL	M9	_	0.0000	0.0000	•	LAHA74
COASTAL AQUIFER COASTAL ADUIFER COASTAL ADUIFER COASTAL ADUIFER COASTAL ADUIFER COASTAL ADUIFER COASTAL ADUIFER COASTAL ADUIFE	COASTAL	NS	_	0.0000	0.0000	70	LAHA74
COASTAL AQUIFER GW 1 0.00000 COASTAL AQUIFER RIV 18 0.00000 PD RIVER RIV 18 0.00000 PO RIVER RIV 18 0.00000 COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN SW 5 0.00000 NACHEN WATIONAL PARK, LAKE NAKURU LAK 11 0.00000 NAZOIA RIVER CATCHMENT RIV 11 0.00000 LAKE NAKURU LAKE NAKURU LAK b 0.00000 LAKE RAKURU LAKE ELEMENTEITA b 0.00000	COASTAL	79	_	0.0000	0.0000	70	LAHA74
COASTAL AQUIFER COASTAL AQUIFE	COASTAL 1	3	-	0.0000	0.0000	70	LAHA74
COASTAL AQUIFER COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN NACIBLE RIVER COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN NACIBLE RIVER COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN NACIBLE RIVER COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN NACIBLE RIVER COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN NACIBLE RIVER COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN NACIBLE RIVER COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN NACIBLE RIVER COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN NACIBLE RIVER COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN NACIBLE RIVER COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN NACIBLE RIVER	COASTAL	M9	,	0.0000	0.0000	פ	LAHA74
COASTAL AQUIFER COASTAL AQUIFER COASTAL AQUIFER PO RIVER RIV 18 0.00000 ADIGE RIVER COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN SW 5 0.00000 MAKURU NATIONAL PARK, LAKE NAKURU NZOIA RIVER CATCHMENT RIV 11 0.00000 LAKE RLEMENTEITA LAKE LEMENTEITA LAKE LAKENTEITA LAKE LEMENTEITA LAKE LEMENTEITA LAKE LEMENTEITA LAKE LEMENTEITA LAKE LAKENTEITA	COASTAL	A9	,	0.0000	0.0000	•	LAHA74
COASTAL AQUIFER COASTAL AQUIFER PO RIVER RIV 18 0.00000 ADIGE RIVER RIV 18 0.00000 COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN SW 5 0.00000 MAKURU MATIOMAL PARK, LAKE MAKURU LAK 1 0.00000 NZOIA RIVER CATCHMENT RIV 11 0.00000 LAKE MAKURU LAK b 0.00000 LAKE ELEMENTEITA LAK b 0.00000	COASTAL	75	_	0.0000	0.0000	70	LAHA74
### BO RIVER ###################################	COASTAL	M 9	-	0.0000	0.0000	•	LAHA74
ADIGE RIVER COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN SW 5 0.00000 MAKURU NATIONAL PARK, LAKE NAKURU NZOIA RIVER CATCHMENT NZOIA RIVER CATCHMENT RIV 13 0.00000 LAKE RLEMENTEITA LAKE ELEMENTEITA LAKE ELEMENTEITA LAKE ELEMENTEITA LAKE LEMENTEITA LAKE LAKENDO	ITALY, PO RIVER	RIV	18	0.0000	0.0000	f.	GALA81
COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN SW 5 0.00000 MAKURU NATIONAL PARK, LAKE NAKURU NZOIA RIVER CATCHMENT NZOIA RIVER CATCHMENT LAKE NAKURU LAKE REMEMTEITA LAKE ELEMENTEITA 0.00000	ITALY, ADIGE RIVER	RIV	8	0.0000	0.0000	, "	GALA8 1
MAKURU MATIOMAL PARK, LAKE MAKURU NZOIA RIVER CATCHMENT NZOIA RIVER CATCHMENT NZOIA RIVER CATCHMENT RIV 13 0.00000 LAKE ELEMENTEITA LAKE ELEMENTEITA LAKE ELEMENTEITA LAKE ELEMENTEITA LAKE ELEMENTEITA	COASTAL ARCH M. OF TARANTO, TARA RIVER	NS	ιń	0.0000	0.03000	•	POLEB3
NZOIA RIVER CATCHMENT 11 0.00000 12 13 0.00000 14 15 15 15 15 15 15 15	KENYA, MAKURU MATIONAL PARK, LAKE MAKURU	LAK	_	00000.0	0.0000	£	GRE 178A
NZOIA RIVER CATCHMENT LAKE NAKURU LAKE ELEMENTEITA LAKE HARMENTEITA LAKE ELEMENTEITA LAKE ELEMENTEITA LAKE HARMENTEITA LAKE ELEMENTEITA LAKE HARMENTEITA LAKE HARMENT	KENYA, MZOIA RIVER CATCHMENT	RIV	=	0.0000	0.0000	-	KAL17
LAK MAKURU LAK b 0.00000 AKE ELEMENTEITA LAK b 0.00000	KENYA, NZOIA RIVER CATCHIENT	RIV	13	0.0000	00000*0	_	KAL177
AKE ELEMENTEITA 0.00000	KEMYA, LAKE MAKURU	LAK	م	0.0000	0.0000	•	KAL177
	KENYA, LAKE ELEMENTEITA	LAK	م	0.0000	0.0000	•••	KALL77
LANE MAINANA	KENYA, LAKE MAIYASHA	LX.	م	0.0000	0.0000	•••	KAL17

Table C-20. (Continued)

	Water	No. of		- N-		
Location	type	samples	Average	Maximum	Coments	Reference
KENYA MALEUA DIVIDA	3					
WENTY CALLER AIVEN	A I A	۵	0.0000	0.0000	~,	KAL!
KENTA, GILGIL RIVER	RIV	۵	0.0000	0.0000	~~	KAL17
MALAYSIA, KRIAN DIST, PERAK STATE, TANJONG PIANDANG	PAO	٣	0.0000	0.0000	•	PE 1E83
MALAYSIA, KRIAH DIST, PERAK STATE, SUNGEI KOTA FIELD	PAD	m	0.40000	0.000		ME1693
_	PND	M	00000-0	00000-0	7	METER 3
TANJOHG PIAN	3	, m	0.20000	0.0000	•	161583
MALAYSIA, KRIAN DIST, PERAK STATE, SUNGET BURONG	CAN	m	0.5000	0.0000		PE1E83
KETHERLANDS/Germany, LCBITH, RHIME RIVER	RIV	م	0.02000	0.06000		WFGW78
RHODESIA, LAKE PCILMAINE	LAK	-	00000-0	0.0000	Æ	GRE 1788
REP. S. AFRICA, TRANSVAM, HARTBEESPOORT DAN	LAK	_	0.0000	0.0000	· .c	GRF 177
REP. S. AFRICA, CAPE PROVINCE, YOELVLEI DAM	LAK	_	0.0000	00000	: _	GRE 177
REP. S. AFRICA, KRUGER NATIONAL PARK, LETABA RIVER	RIV	65	0.00169	0.0000		VAND78
REP. S. AFRICA, KRUGER NATIONAL PARK, OLIFANTS RIVER	RIY	9	0.00285	0.0000		VAND78
	300 6	_	0.00620	0.0000	<u>يد</u>	JOHA76
	90E	م	000000	0.0000	4, 1	JOMA76
_	300 6	م	0.0000	0.0000	.	JOHA76
_	OCE	م	0.0000	0.0000	, p	JONA 76
_	90E		0.01940	0.0000	سد '	JONA76
_	OCE		0.0000	0.0000	d. 1	JONA 76
	300	,	0.0000	0.0000	e	JOHA76
USA, MORTH ATLANTIC CCEAN	SCE	_	000000	0.0000	, p	JONA 76
USA, MEH YORK, OLCOTT, LAKE ONTARIO	LA	م	0.00390	0.0000	•	UA: 170
USA, NEW YORK, ROCHESTER, LAKE ONTARIO	LAK	م	0.00220	0.00000		HALL 79
USA, MORTH ATLANTIC OCEAN	90E	-	0.0000	0.0000	d, 1	30MA76
USA, WORTH ATLANTIC OCEAN	300	-	00000-0	0.0000		JONA 76
USA, MORTH ATLANTIC OCEAN	30 0CE		0.0000	0.0000	, , ,	JOHAZE
USA/CAMADA, LAKE ONTARIO	LAK	۵	0.01600	0.0000	: ;	MAI 1 79
USA, WORTH ATLANTIC OCEAN	OCE	~	0.00610	0.0000	.34	JOHA 76

Table C-20. (Continued)

Location USA, MORTH ATLANTIC OCEAN USA, NORTH ATLANTIC OCEAN USA, NORTH ATLANTIC OCEAN USA, NORTH ATLANTIC OCEAN USA, NORTH ATLANTIC OCEAN	type	samples		The second secon		
NORTH ATLANTIC NORTH ATLANTIC NORTH ATLANTIC NORTH ATLANTIC NORTH ATLANTIC			Average	Max ferue	Coments	Reference
NORTH ATLANTIC NORTH ATLANTIC NORTH ATLANTIC NORTH ATLANTIC	300	-	. 6.00570	0.0000	-	MAA76
MORTH ATLANTIC NORTH ATLANTIC MORTH ATLANTIC	330	-	0.00620	0.000		JONA 76
NORTH ATLANTIC	330		0.0000	0.0000		MEA76
HORTH ATLANTIC	330	_	0.00040	0.0000	:	JCHA76
	300		0.00640	0.0000	ر ۽	30MA76
USA, MORTH ATLANTIC OCEAN	300	-	0.00480	0.0000		J08476
NORTH ATLANTIC	300	_	0.00810	0.0000	: c	JOHA76
	300		090100	0.0000		JONA76
	300	_	0.00330	0.0000	_	309A76
USA, GORTH ATLANTIC OCEAN	300	_	0.01190	0.00000		JONA 76
UNITED STATES	م		0.00400	0.0000	: e c	JOHA76
USA, NORTH ATLANTIC OCEAN	300	_	0.00610	0.0000	٠.	JOHA 76
_	OCE	pr3	0.00810	0.0000	. –	JOBA 76
USA, NORTH ATLANTIC OCEAN	300		0.4000	0,0000	•	JOHA 76
USA, MORTH ATLANTIC OCEAN	OCE		0.01830	0.0000		JOHA 76
USA, NORTH ATLANTIC OCEAN	300	_	0.00330	0.0000	بد:	.10ma76
MORTH ATLANTIC	300	_	0.00980	0.0000	,	JOHA76
, NORTH ATLANTIC	330		0.0000	0.0000		JOHA76
HORTH ATLANTIC	300	نسم	0.00630	0.0000	•	JONA76
MORTH ATLANTIC	300	_	0.00050	0.0000	246	JOHA76
MORTH ATLANTIC	300	pas	0.00220	0.0000		JOHA76
MORTH ATLANTIC	300	# *	0.0010	0.0000	•	J04476
NORTH ATLANTIC	OCE	_	0.00480	0.0000	c	JOHA76
MORTH ATLANTIC	300	_	0.00670	0.0000	.34	30MA76
HORTH ATLANTIC	300	-	0.00783	0.0000		J09A76
MUKIH AILANIIC	OCE.		0.00100	0.0000	Œ	J08A76
USA, MORTH ATLANTIC OCEAN	30	,	0.00040	0.0000	•	20cA76

Table C-20. (Continued)

	Nater	No. of		Reported values (19/1)	(1/6 1)	
Location	type ^a	samples .	Average	Nax inco	Coments	Reference
VIRGIN ISLANDS, ST. THOMAS VIRGIN ISLANDS, ST. JOHN	C1S	. 21	0.00000	0.10000		LENG72 LENG72
Water types: BRK = brackish; CAN = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAK = lake; OUE = ocean; PAD = paddy; PRD = pond; RES = reservoir; RIV = river; RNF = runoff; SN = surface water; TAP = tap water; WSI = waste water. Depth = 33 m. Not detected. Opetection limit < 1 ng/L. Trace amounts detected. Detection limit = 3 ng/L. Average detected <0.10 ppb. Average detected <0.00 ppb. Average detected <0.00 ppb. Average detected <0.00 ppb. Detection limit = 50 m. Depth = 50 m. Depth = 50 m. Depth = 1000 u.	UIS = cistern; d water; LAK = lake; ES = reservoir; water; TAP = tap wa	i.	Statistics: Number of a Number of s Hean of the Highest of Standard de Mean of the Standard de Jogarithm	Statistics: Number of locations sampled: 140 Number of samples within detection limits: 5: Hean of the highest reported values: 0.06736 Highest of the reported values: 1.03000 Standard deviation: 0.17387 Mean of the natural logarithms: -4.79764 Standard deviation of the natural logarithms: 1.99483	led: 140 detection limits rted values: 0.00 values: 1.03000 7387 rithms: -4.79764 e natural	7.35 5.00 7.10 7.10 7.10 7.10 7.10 7.10 7.10 7

Table C-21. Monitoring data for dimethoate in water.

	4		Report	Reported values (119/L)	£)	
Location	type	samples	Average	Nex (men	Comments	Reference
NETHERLANDS/GERMANY/SWITZERLAND, RHIME RIVER	RIV	a	0.07000	0.0000		GREV72
NETHERLANDS/GERMANY/SHITZERLAND, RHINE RIVER	RIV	۵	0.08000	0.0000		GRE 172
USA, CALIFORNIA	35	22	0.0000	00000	o, d	FM0082
* Water types: BRK * brackish; CAN * canal; CIS * cistern;	cistern;		Statistics:			
CRK = creek; DRM = drainage; SW = ground wat	d water; LAK - lake;	ake;	Number of	Mumber of locations sampled: 3		
OCE = ocean; PAD = paddy; PND = pond; RES =	RES = reservoir;		Rumber of s	Number of samples within detection limits: 2	letection lim	its: 2
	water; TAP - tap water;	p water;	Hean of the	Hean of the highest reported values: 0.07500	ted values: (0.07500
WST = waste mater.			Highest of	Highest of the reported values: 0.08000	1)ves: 0.080	8
D Uncertain.			Standard de	Standard deviation: 0.00707	707	•
C Detection limit = 5.0 ppb.			Hean of the	Mean of the natural logarithms: -2.59249	(thms: -2.59)	249
d Not detected.			Standard de	Standard deviation of the natural	natural	
			logarith	Jonarithms: 0.09462		

Table C-22. Monitoring data for endosulfan in water.

· ·	Kater	e G	Rep	Reported values (119/L)	åv√l)	
Location	type	semples .	Average	Max tens	Coments	Reference
INDONESIA, JAKARTA, SAMARAMG, SURABAYA	RIV	. 2	0.0000	0.01000		PUBIT 7
ISRAEL, LAKE KINNERET	LÆ	12	0.0000	0.0000	υ ດ	KANA74
ISRAEL, JORDAN RIVER	RIV	٠	0.0000	00000*0	p. c	KARA74
ISRAEL, LAKE KIMMERET MATERSHED	DRN	m	0.0000	0.0000	<u>.</u>	KANA74
ISRAEL, JORDAN RIVER (LONER)	RIV	_	0.0000	0000000	, o	KANA74
ISRAEL, VASUOR RESERVOIR	RES	_	0.00000	0.0000	ب م	KAHA74
ISRAEL, KISHON RESERVOIR	RES	,	0.0000	0000000		KANA74
ISRAEL, ZOHAR RESERVOIR	RES		0.0000	0.0000	ں م	KAHA74
EAST JAVA, BRANTAS DELTA	2	17	000000	0.55000	•	GOR EV
EAST JAVA, BRANTAS DELTA	- B-	17	0.0000	0.44000		608871
EAST JAVA, BRANTAS DELTA	AIS	52	00000.0	0.45000		60RB71
EAST JAVA, MADURA SEA	906	17	0.0000	0.30000		608671
KENYA, NAKURU NATIONAL PARK, LAKE NAKURU	ž	-	0.00000	0.0000	U	GRE178A
RHODESIA, LAKE MCILMAIME	Ę	_	0.0000	0.0000	U	GRE 1788
REP. S. AFRICA, TRANSVAAL, HARTBEESPOORT DAM	ž		00000 0	0.0000	Ų	CAE 177
REP. S. AFRICA, CAPE PROVINCE, VOELVLEI DAN	LAK	~	0.0000	0.0000	U	GRE177

Water types: BRK = brackish; CAN = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RIV = river; RNF = runoff; SW = surface water; TAP = tap water; WST = waste water.

b Detection limit <1 ng/L. C Not detected.

Mean of the natural logarithms: -1.60527 Standard deviation of the matural logarithms: 1.69125

Number of samples within detection limits: 5 Mean of the highest reported values: 0.35000

Number of locations sampled: 16

Statistics:

Highest of the reported values: 0.55000

Standard deviation: 0.20938

Table C-23. Monitoring data for alpha-endosulfan in water.

		Š	Repor	Reported values (119/L)	(T)	
Location	type	samples	Average	Nax (men	Comments	Reference
BELGIUM, EYSDEN, RIVER HEUSE	¥18	۵	0.01000	00060-0		LEGIOR.
FED. REPUBLIC OF GERMANY, HAMBURG, ELBE RIVER	RIV	12	0.0000	0,0000	U	HER177
FED. REPUBLIC OF GERMANY, LAUENBURG, ELBE RIVER	RIY		0.0000	0,0000	· u	HCR272
REPUBLIC OF	RIV	15	0.0000	0.0000	v	HER 272
REPUBLIC OF GERMANY,	RI¥ ¥	-	0.0000	000000	v	HER272
REPUBLIC OF GERMANY, DUSSELDORF, RHINE RI	RIV	=	0.0000	0.07000		HEA272
REPUBLIC OF GERMANY,	RIV	15	0.0000	0.0000	U	HER272
REPUBLIC OF	81¥	, -	0.0000	0.00000	U	HER 172
REPUBLIC OF	RIV		0.0000	0.0000	U	HER272
REPUBLIC OF	RIV	~	0.0000	0.0000	U	HER272
REPUBLIC OF	RIV	15	0.0000	0.0000	U	HERZ72
REPUBLIC OF GERMANY.	RIV		0.0000	0.0000	Ų	HER272
REPUBLIC OF	RIV	_	0.0000	0.0000	U	HER272
REPUBLIC OF	RIV	-	0.0000	0.0000	U	HER272
REPUBLIC OF	RIV	****	0.0000	0.0000	· u	HERITZ
REPUBLIC OF	RIV		0.0000	0.0000	U	HER272
REPUBLIC OF GERMANY,	RIV	,- -	0.0000	0.0000	U	HER172
REPUBLIC OF GERMANY,	RIV	-	0.0000	0.0000	U	HER272
REPUBLIC OF GERMANY.	RIV	,	0.0000	0.0000	U	HER172
REPUBLIC OF GERMANY.	RIV	-	0.0000	0.0000	Ų	HER272
REPUBLIC OF GERMANY.	RIV		0.0000	0.0000	U	HERT72
REPUBLIC OF GERMANY, RAUMEIN, MAIN RIVE	RIV	_	0.10000	0.0000		HER272
REPUBLIC OF GERMANY, BAD BERNECK, MAIN RI	RIX	~	0.0000	0.0000	v	HERT72
REPUBLIC OF GERMANY,	RIV	- -	0.0000	0.0000	v	HER 172
REPUBLIC OF GERMANY, LANGENARGEN, LAKE CO	Z	_	0.0000	0.0000	U	HERZ72
REPUBLIC OF	RIV	_	0.01000	0.0000		HER 272
REPUBLIC OF	RIV	,	0.0000	0,0000	U	HER 272
FED. REPUBLIC OF GERMANY, BERLIM-GATON, HAVEL RIVER	RIV	51	0.0000	0.0000	U	HERITZ

Table C-23. (Continued)

	Water	No. of		Reported values (119/L)	(1/6n)	
Location	type	samples	Average	Maximum	Comments	Reference
F.R.G., BERLIN-LICHTERFELDE, TELTOMKANAL	RIV	15	0000000	000000	u	HER772
EAST JAYA, BRANTAS DELTA	CA	17	0.0000	5.80000	•	Cresz
EAST JAYA, BRANTAS DELTA	<u>S</u>	12	0.0000	0.25000		GOREO 1
LASI JAWA, BRANIAS RIVER DELTA	RIV	25	0.0000	2,0000		CORR71
EASI JAVA, MUURA SEA	OCE.	11	0.0000	0.09000		608671
NEINERLANDS/GERMANY, LOBITH, RHIME RIVER	RIV	م	0.03000	0.24000		LECENTR.
REP. S. AFRICA, KRUGER MATIONAL PARK, LEVUBU RIVER	RIV	92	0.00197	0.00634		VAED78
REF. S. AFRICA, KRUGER MATIONAL PARK, LETABA RIVER	RIV	65	0.00010	0.0000		VAMOZE
REP. S. AFRICA; KRUGER MATIONAL PARK, CROCODILE RIVER	RIV	9	0.00010	0.00127		YARDZ K
USA, CALIFURNIA	, A9	22	0.0000	0.0000	C. d	HADDB2

a Water types: BRK = brackish; CAM = canal; CIS = cistern;
CRK = creek; DRN = drainage; GW = ground water; LAK = lake;
OCE = ocean; PAD = paddy; PND = pond; RES = reservoir;

RIV = river; RNF = runoff; SW = surface water; TAP = tap water;

WST = waste water.

b Uncertain.

C Not detected. d Detection limit = 5.0 ppb.

Standard deviation: 2.07728

Mean of the natural logarithms: -2.89219
Standard deviation of the natural logarithms: 3.13643

Number of samples within detection limits: 12 Mean of the highest reported values: 0.97146

Number of locations sampled: 38

Statistics:

Highest of the reported values: 5.80000

Table C-24. Monitoring data for beta-endosulfan in water.

Hater No. of type		Coments Reference	400000	J. Turking	b HER272	b HERZ72	b HER272	HER772	b HER272	b HER272	b HER272	b HERZ72	b HER272	b HER272	b HER272	b HERZ72	b HER272	b HER272	b HER272	b HER272	b HER272	b HER272	b HER272	HER272	b HER772	b HER272	b HER272	b HER272	b 9ER272	
Water No. of typea Samples Typea	rted values (119/L)		00000		0,0000	000000	0.0000	00560°0	0.0000	0.0000	0.0000	0.0000	0.0000	0,0000	0.0000	0,0000	0.0000	000000	0.0000	0,0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
UBLIC OF GERMANY, HAMBURG, ELBE RIVER UBLIC OF GERMANY, LAUENBURG, ELBE RIVER UBLIC OF GERMANY, LAUENBURG, ELBE RIVER UBLIC OF GERMANY, ACHIM, MESER RIVER UBLIC OF GERMANY, DUSSELDORF, RHIME RIVER UBLIC OF GERMANY, DUSSELDORF, RHIME RIVER UBLIC OF GERMANY, DUSSELDORF, RHIME RIVER UBLIC OF GERMANY, ST. GOAR, RHIME RIVER UBLIC OF GERMANY, JOCHENSTEIN, DAMUBE RIVER UBLIC OF GERMANY, JOCHENSTEIN, DAMUBE RIVER UBLIC OF GERMANY, ULM, DANUBE RIVER UBLIC OF GERMANY, REINGSHIG, NORDOSTSEEKANAL UBLIC OF GERMANY, REINGSHIG, RUMR RIVER UBLIC OF GERMANY, REINGSHIG, RUMR RIVER UBLIC OF GERMANY, STEGBURG, SIEG RIVER UBLIC OF GERMANY, STEGBURG, SIEG RIVER UBLIC OF GERMANY, RAUMHEIM, MAIN RIVER UBLIC OF GERMANY, RAUMHEIM, MAIN RIVER UBLIC OF GERMANY, RAUMHEIM, MAIN RIVER UBLIC OF GERMANY, HEIDELBERG, MECKAR RIVER UBLIC OF GERMANY, LAMERING, RAIVER UBLIC OF GERMANY, LAMERING, RAUMER RIVER UBLIC OF GERMANY, LAMERNECK, MAIN RIVER UBLIC OF GERMANY, LAMERNECK, MAIN RIVER UBLIC OF GERMANY, LAMERNAGEN, LAKE CONSTANCE LAK	Repor	Average	00000	900000	0.0000	0.0000	0.0000	0.0000	0.0000	0000000	0.0000	0.0000	0.0000	0.0000	0.0000	0,0000	0.0000	00000	0.0000	0.0000	0.0000	0.0000	0.0000	0.04500	0.0000	0.0000	0.0000	0.0000	0.0000	
UBLIC OF GERMANY, HAMBURG, ELBE RIVER UBLIC OF GERMANY, LAIEMBURG, ELBE RIVER UBLIC OF GERMANY, BREWEN, MESER RIVER UBLIC OF GERMANY, DUSSELDORF, RHIME RIVER UBLIC OF GERMANY, MESEL, RHIME RIVER UBLIC OF GERMANY, ST. GOAR, RHIME RIVER UBLIC OF GERMANY, JOCHENSTEIN, DANUBE RIVER UBLIC OF GERMANY, JOCHENSTEIN, DANUBE RIVER UBLIC OF GERMANY, JOCHENSTEIN, DANUBE RIVER UBLIC OF GERMANY, ULM, DANUBE RIVER UBLIC OF GERMANY, RENOSBURG, MORDOSTSEEKAMAL UBLIC OF GERMANY, RENOSBURG, MORDOSTSEEKAMAL UBLIC OF GERMANY, RENOSBURG, SIEG RIVER UBLIC OF GERMANY, RENOSBURG, SIEG RIVER UBLIC OF GERMANY, RAUMHEIM, MAIN RIVER UBLIC OF GERMANY, RAUMHEN, RAUMHEIM, MAIN RIVER UBLIC OF GERMANY, RAUMHEN, RAUMHEN, MAIN RIVER UBLIC OF GERMANY, REDELEGER, LAKE CONSTANCE	<u>.</u>	samples .	2			15	,	=	15	,- -	gents	_	15	-	_	_	-	_		_		_		-		-	,	PRO		•
UBLIC OF GERMANY, HAMBURG, ELBE RI UBLIC OF GERMANY, BREWEN, MESER RIV UBLIC OF GERMANY, BREWEN, MESER RIV UBLIC OF GERMANY, DUSSELDORF, RHIME UBLIC OF GERMANY, WESEL, RHIME RIV UBLIC OF GERMANY, WESEL, RHIME RIV UBLIC OF GERMANY, OCSTRICH, RHIME UBLIC OF GERMANY, JOCHENSTEIN, DAN UBLIC OF GERMANY, ULM, DANUBE RIVE UBLIC OF GERMANY, ULM, DANUBE RIVE UBLIC OF GERMANY, ULM, DANUBE, NORDC UBLIC OF GERMANY, RENDSBURG, NORDC UBLIC OF GERMANY, RENDSBURG, SIEG R UBLIC OF GERMANY, BLISBURG, SIEG R UBLIC OF GERMANY, RESIDENCH, LAHN R UBLIC OF GERMANY, RAUMHEIN, MAIN R UBLIC OF GERMANY, RAUGHERECK, MAI	4	type	>10		×	RIV	RIV	RIV	RIV	RIV	RIV	RIV	RİV	RIV	RIY	RIV	RIV	RIV	RIV	RIV	RIV	RIV	RIV	RI <	RIV	RIV	Ľ¥	RIV	RIV	*****
UBRIC OF UBR				AICHDIDC CIPC DINCO	LAUERDUNG, CLOC	BREMEN, MESER RI	ACHIM, WESER RIV	DUSSELDORF, RHIN	KARL SRUME, RHINE		ST. GOAR, RHINE			ULM, DANUBE RIVE	INGOLSTADT, DAM			BRAMSCHE, MITTEL				FACHBACH, LAHN RI	KOBLENZ, MOSELLE	RAUMHEIM, MAIN R	BAD BERNECK, MAIN RIVER	HEIDELBERG, NECK	LANGENARGEN, LAN	ERLANGEN, REGNITZ RIVER	GERMANY, HOF, SAALE RIVER	CEDMANY DEDITO CATOL MANTE ATLES
Locat		Location	REPURLIC OF	REPURE TE OF	ארו מתרוב מ	REPUBLIC OF	REPUBLIC OF	REPUBLIC OF	REPUBLIC OF	REPUBLIC OF	REPUBLIC OF	REPUBLIC OF	REPUBLIC OF	REPUBLIC OF	REPUBLIC OF	REPUBLIC OF	REPUBLIC OF	REPUBLIC OF	REPUBLIC OF	REPUBLIC OF	KEPUBLIC OF	REPUBLIC OF	REPUBLIC OF	REPUBLIC OF	KEPUBLIC OF	REPUBLIC OF	REPUBLIC OF		אברטפרור טי	CED DEGLES TO AN ANALY

Table C-24. (Continued)

1014100			יילים כפי עם ופילים לחלונים		
type"	samples .	Average	Hax Smare	Comments	Reference
F.R.G., BERLIN-LICHTERFELDE, TELTOMKANAL EAST JAVA, GRANTAS DELTA EAST JAVA, BRANTAS DELTA EAST JAVA, BRANTAS DELTA EAST JAVA, MADURA SEA REP. S. AFRICA, KRUGER NATIONAL PARK, LEYUBU RIVER RIV REP. S. AFRICA, KRUGER NATIONAL PARK, LETABA RIVER RIV USA, CALIFORNIA	55 55 55 55 55 55 55 55 55 55 55 55 55	0.0000 0.0000 0.0000 0.0000 0.0000 0.00555 0.00056	0.0000 2.4000 0.0800 2.0000 0.0700 0.0000 0.0000		HER272 GORB71 GORB71 GORB71 GORB71 VARD78 VARD78

Water types: BRK = brackish; CAM = canal; CIS = cistern; CRK = creek; DRM = drainage; GW = ground water; LAK = lake;

OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RIV = river; RNF = runoff; SW = surface water; TAP = tap water;

WST = waste water.

b Not detected.

C Detection limit = 5.0 ppb.

Statistics:
Number of locations sampled: 35
Number of samples within detection limits: 8
Hean of the highest reported values: 0.58701
Highest of the reported values: 2.42000
Standard deviation: 1.00183
Mean of the natural logarithms: -2.71864
Standard deviation of the natural
logarithms: 2.77008

Table C-25. Monitoring data for endrin in water.

30 0.00000 0.00000 b. c 0.00000 1 1.50000 0.00000 0.00000 b. c 0.00000 0.00000 0.00000 1 1.50000 0.00000 0.00000 c c f 0		1	Š	Rep	Reported values (119/L)	الا	
MANDI VALLEY, WEE WAA, M.S.M. MILE RIVER MILE MILE RIVER MILE MILE RIVER MILE MILE RIVER MILE MILE MILE MILE MILE MILE MILE MILE	Location	type	samples	Avérage	Haximum	Comments	Reference
NAMERIA NAME	AUSTRALIA, MANDI VALLEY, NEE WAA, N.S.W.	CIS	30	00000	0.0000	ن. م	008 74
JAKARTA, SAWARANE, SURABAYA TAP 1 1,50000 0,00000 e LAR RESERVOIR RES 2 0,00000 0,00600 e LAR RESERVOIR RES 12 0,00000 0,00600 e LAR RESERVOIR RES 12 0,00000 0,00600 e E KINKERET LAK 21 0,00000 0,00000 e f E KINKERET MATERSHED, DAN RIVER RIV 1 0,00000 0,00000 e, f f DAN RIVER RE KINKERT WATERSHED RIV 1 0,00000 0,00000 e, f DAN RIVER RE JORDAN RIVER RES 1 0,00000 0,00000 e, f HON RESERVOIR RES 1 0,00000 0,00000 e, f f HON RESERVOIR RES 1 0,00000 0,00000 e, f f HON RESERVOIR RES 1 0,00000 0,00000 e, f f HON RESERVOIR RESTAVOIR RES	EGYPT, GIZA, MILE RIVER	RIV	-	0.7000	0.0000		OSMAGO
RAME, SURABAYA RIV d 0.00000 0.00000 e RES 12 0.00030 0.00000 0.00000 f RES 12 0.00000 0.00000 f IERSHED, DAN RIVER AT FOUNT RIV 1 0.00000 0.00000 e, f IERSHED, DAN RIVER AT FOUNT RIV 1 0.00000 0.00000 e, f IERSHED ORH 1 0.00000 0.00000 e, f IERSHED ORH 1 0.00000 0.00000 e, f IERSHED RIV 1 0.00000 0.00000 e, f IERSHED RIV 1 0.00000 0.00000 e, f IERSHED RIV 1 0.00000 0.00000 e, f IERS 1 0.00000 0.00000 e, f IERSHED 1 0.00000 0.00000 e, f IERSHED 1 0.00000 0.00000 e, f IERSHED 1 0.	EGYPT, 612A	TAP		1.50000	0.0000		OSMABOR
RES 12 0.00430 0.00600 RES 12 0.00430 0.00600 RES 12 0.00000 0.00600 RES 13 0.00330 0.00000 RES 14 0.00330 0.00000 RES 14 0.00330 0.00000 RES 14 0.00000 0.00000 RES 15 0.00000 0.00000 RES RES 15 0.00000 0.00000 RES	INDONESIA, JAKARTA, SAMARAMG, SURABAYA	RIV	70	0.0000	0.0000	v	PURO/7
RES 12 0.00000 0.00600 RES 1 0.00330 0.00000 f LAK 21 6.00000 0.00000 f RIV 1 0.00000 0.00000 e, f RIV 1 0.00000 0.00000 e, f RIV 1 0.00000 0.00000 e, f RES 1 0.00000 0.00000 f RES 4 0.00000 0.00000 e, f RES 1 0.00000 0.00000 e, g RES 4 0.00000 0.00000 e, g RIV 18 0.00000 0.00000 e, g RIV 18 0.00000 0.00000	INDIA, SATHIAR RESERVOIR	RES	2	0.00430	0.00600		EANITY 9
FCS	INDIA, SATHIAR RESERVOIR	RES	12	0.0000	0,00600		KAMM(79
FOUNT RIV 1 0.00000 0.00000 f RIV 1 0.00000 0.00000 e, f RIV 1 0.00000 0.00000 f RIV 1 0.00000 0.00000 e, f RES 1 0.00000 0.00000 e, f RES 1 0.00000 0.00000 e, f RES 1 0.00000 0.00000 f RES 1 0.00000 0.00000 f RES 1 0.00000 0.00000 e, g RES 1 0.00000 0.00000 e, g	INDIA, SATHIAR RESERVOIR	RES		0.00330	0.0000		KANN79
FOUNT RIV 1 0.00000 0.00000 e, f RIV 6 0.00000 0.00100 f RIV 1 0.00000 0.00000 e, f RIV 1 0.00000 0.00000 e, f RES 1 0.00000 0.00000 f RES 1 0.00000 0.00000 e, g RES 1 0.00000 0.00000 e, g RES 1 0.00000 0.00000 e, g	I SRAEL, LAKE KINNERET	LÆ	12	0.0000	0.0000	4	KAHK74
ATERSHED ATERSH		RIV	-	0.0000	0.0000	e, f	KAHA74
ATERSHED ATERSH	I SRAEL, JORDAN RIVER	RIV.	v	0.0000	0.00100	· •-	KAHA74
LAKE KINNERET WATERSHED DRN 3 0.00000 0.00000 e, f LOMER JORDAN RIVER RIV 1 0.00000 0.00000 e, f YASUOR RESERVOIR RES 1 0.00000 0.00000 e, f KISHON RESERVOIR, NORTH RES 1 0.00000 0.00000 e, f KISHON RESERVOIR, SOUTH RES 1 0.00000 0.00000 f GEVAT RESERVOIR RESERVOIR RES 3 0.00000 0.00000 f GEVAT RESERVOIR RESERVOIR RES 4 0.00000 0.00000 e, f CONAR RESERVOIR RIY RES 1 0.00000 0.00000 e, g CONAR RESERVOIR RIY RIY RIY RIY R. g e, g CONAR RESERVOIR RIYER RIY RIY g 0.00000 0.00000 e, g CONSTAL ARCH N. OF TARANTO, TARA RIVER BASIN SU 5 0.00000 0.00000 0.00000 e, g	ISRAEL, NESHUSHIM RIVER	RIV	-	000000	0.0000	e, f	KANA74
LOWER JORDAN RIVER LOWER JORDAN RIVER RIV 1 0.00000 0.00000 e, f YASUOR RESERVOIR RES 1 0.00000 0.00000 e, f KISHOM RESERVOIR, NORTH RES 1 0.00000 0.00000 e, f KISHOM RESERVOIR, NORTH RES 1 0.00000 0.00000 e, f KISHOM RESERVOIR, NORTH RES 3 0.00000 0.00000 f GEVAT RESERVOIR RESERVOIR RES 4 0.00000 0.00000 f GEVAT RESERVOIR RESERVOIR RES 4 0.00000 0.00000 e, f COHAR RESERVOIR RIS RIV RES 1 0.00000 0.00000 e, f COHAR RESERVOIR RIVER RIV RIV RIV e, g e COHAR RESERVOIR RESAMIO, TARA RIVER BASIN SU 0.00000 0.00000 0.00000 e, g	I SRAEL, LAKE KINNERET WATERSHED	DRM	m	00000	0.0000	e, f	KAHA74
RES 1 0.00000 0.00000 e, f RES 1 0.00000 0.00000 e, f RES 1 0.00000 0.00000 f RES 3 0.00000 0.00000 f RES 1 0.00000 0.00000 f RIV 18 0.00000 0.00000 e, g TARA RIVER BASIN SW 5 0.00000 0.05000	ISRAEL, LONER JORDAN RIVER	RIV	**	0.0000	0.0000	e, f	KAHA74
RES 1 0.00000 0.00000 e, f RES 1 0.00000 0.00000 f RES 1 0.00000 0.00000 f RES 3 0.00000 0.00070 f RES 4 0.00000 0.00900 f RES 1 0.00000 0.00900 f RES 1 0.00000 0.00900 f RIV 18 0.00000 0.00000 e, g TARA RIVER BASIN SW 5 0.00000 0.05000	I SRAEL, YASUOR RESERVOIR	RES	,	0.0000	0.0000	e, f	KAHA74
RES 1 0.00000 6.00000 6. f RES 3 0.00000 0.00000 f RES 3 0.00000 0.00070 f RES 4 0.00000 0.00000 f RES 1 0.00000 0.00000 f RIV 18 0.00000 0.00000 6. g TARA RIVER BASIN SW 5 0.00000 0.05000	ISRAEL, KISHON RESERVOIR	RES		0.0000	0.0000	e, f	XANX 4
RES 1 0.00000 0.00000 f RES 3 0.00000 0.00070 f RES 4 0.00000 0.00900 f RES 1 0.00000 0.00000 e, f RIV 18 0.00000 0.00000 e, g TARA RIVER BASIN SW 5 0.00000 0.05000	ISRAEL, KISHON RESERVOIR, NORTH	RES	***	0.0000	0.0000	e. f	KAHA74
RES 3 0.00000 0.00070 f RES 4 0.00000 0.00900 f RES 1 0.00000 0.00900 e, f RIV 18 0.00000 0.00000 e, g TARA RIVER BASIN SW 5 0.00000 0.05000	CISHON RESERVOIR,	RES	,	0.0000	0.0000	٠.	KANA74
RES 4 0.00000 0.00900 f RES 1 0.00000 0.00000 e, f RIV 18 0.00000 0.00000 e, g TARA RIVER BASIN SW 5 0.00000 0.05000	ISRAEL, GEVAT RESERVOIR	RES	m	0.0000	0,00070	*	KAHA74
RIV 18 0.0000 0.00000 e, f RIV 18 0.0000 0.00000 e, g RIV 18 0.00000 0.00000 e, g RASIN SW 5 0.00000 0.05000	ISRAEL, GEVAT RESERVOIR (EHTRANCE)	RES	◀	0.0000	0.0000	-	KAN74
RIV 18 0.00000 0.00000 e. g RIV 18 0.00000 0.00000 e. g BASIN SW 5 0.00000 0.05000	I SRÁEL, ZOHAR RESERVOIR	RES		0.0000	0.0000	.	KAHA74
BASIN SW 5 0.00000 0.05000 e. g	ITALY, PO RIVER	RIV	18	0.0000	0.0000		EM AB 1
BASIN SW 5 0.00000 0.05000	ITALY, ADIGE RIVER	RIV	18	0.0000	0.0000		GW AB1
		75	v o	0.0000	0.05000	•	POLE83

Table C-25. (Continued)

•	Water	Ro. of	Repo	Reported values (119/L)	19/1)	
Location	t ype ^a	samples	Average	Nax faun	Coments	Reference
KENYA, NAKURU NATIONAL PARK, LAKE NAKURU	LAK	_	0.0000	0.0000	•	CRE178A
RHODESIA, LAKE MCILNAINE	LAK	_	0.0000	0.0000	•	CB51788
REP. S. AFRICA, TRANSVAAL, HARTBEESPOORT DAN	LAK	_	0.0000	0.0000	, 4	GE 177
REP. S. AFRICA, CAPE PROVINCE, VOELVLET DAM	LÆ	-	0.0000	0.0000	•	11369
USA, CALIFORNIA	3	22	0.0000	0.0000	.	M0062
Water types: BRK = brackish; CAM = canal; CIS = cistern; CRK = creek; DRM = drainage; GW = ground water; LAK = 0CE = ocean; PAD = paddy; PND = pond; RES = reservoir RIV = river; RNF = runoff; SW = surface water; TAP = i HST = waste water. A Average detected <0.10 ppb. C from roof tanks in town. d Uncertain. e Not detected. f Detection limit <1 ng/L. 9 Detection limit = 5 ng/L. h Detection limit = 5.0 ppb.	S = cistern; water; LAK = lake; - reservoir; ater; TAP = tap water;	: te	Stati Numbe Numbe Mean Highe Stand Stand log	Statistics: Number of locations sampled: 28 Number of samples within detection Mean of the highest reported value Highest of the reported values: Standard deviation: 0.52047 Mean of the natural logarithms: Standard deviation of the natural logarithms: 2.70096	Statistics: Number of locations sampled: 28 Number of samples within detection limits: 9 Hean of the highest reported values: 0.25289 Highest of the reported values: 1.50000 Standard deviation: 0.52047 Hean of the natural logarithms: -4.19681 Standard deviation of the natural logarithms: 2.70096] imits: 9 :: 0.25289 :50000 .1968]

Table C-26. Monitoring data for EPN in water.

	er No. of	Repo	Reported values (119/L)	(n/s/r)	
Location	type ^a samples	Average	Raximum	Comments	Reference
USA, CALIFORNIA USA, CALIFORNIA GM	. 12	0.00000	0,0000.0	0 ° 4	MADOB2 MADOB2
<pre>d Hater types: BRK = brackish; CAN = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RIV = river; RNF = runoff; SN = surface water; TAP = tap water; WST = waste water. b Not detected. C Detection limit = 5.0 ppb.</pre>	ike. ap water;	Statistics: Number of 16 Number of 53	Statistics: Number of locations sampled: 2 Number of samples within detecti	Statistics: Number of locations sampled: 2 Number of samples within detection limits:	imits: 0

Table C-27. Monitoring data for fluometuron in water.

		Repo	Reported values (119/L)	(1/6 17)	
Location	type samples.	Average	Maximus	Comments	Reference
PUERTO RICO	A	540,00000	0.0000		0851381
RICO	م	150,00000	0.0000	9	WE1580
		0000009	0,0000	U	ME I 580
TEXAS	_	90.0000	0.0000	•	085138
		290,00000	0.0000	U	ME I 580
MISSISSIPPI	, \ <u>\</u>	160.0000	0.0000	70	WE1580
Water types: BRK = brackish; CAM = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RIV = river; RNF = runoff; SW = surface water; TAP = tap water; WSI = waste water. b Uncertain. c Sample from within a treated plot. d Sample taken I mile downslope from treated plot.	ake; p water;	Statistics: Number of 1s Number of s Mean of the Highest of Standard des Standard des Standard des Jogarithms	Statistics: Number of locations sampled: 6 Number of samples within detectioners of the highest reported valuable standard deviation: 182,42807 Mean of the natural logarithms: Standard deviation of the natural logarithms:	Statistics: Number of locations sampled: 6 Number of samples within detection limits: 6 Mean of the highest reported values: 210.00000 Highest of the reported values: 540.00000 Standard deviation: 182.42807 Mean of the natural logarithms: 5.03936 Standard deviation of the natural	imits: 6 210.00000 .00000

Table C-28. Monitoring data for fluridone in water.

	Water	io.	Ref	Reported values (119/L)	19/1)	
Location	type	samples	Average	Nax imun	Coments	Reference
PANAMA CANAL, LAKE GATUN PANAMA CANAL, LAKE GATUN	LA CA	9 02	0.00000.0	10,00000	υu	WEST83
Water types: BRK = brackish; CAM = canal; CIS = cistern; CRK = creek; DRH = drainage; GM = ground water; LAK = lake; OCE = ocean; PAD = paddy; PHD = pond; RES = reservoir; RIV = river; RNF = runoff; SW = surface water; TAP = tap waiter WSI = waste water. b Uncertain. c Detection limit = 0.001 to 0.0005 ppm.	is = cistern; water; LAK = lake; s = reservoir; ater; TAP = tap water;		Stati Numbe Numbe Mean Highe Stand Stand Jog	Statistics: Number of locations sampled: 2 Number of samples within detection limits: 2 Mean of the highest reported values: 30.00000 Highest of the reported values: 50.00000 Standard deviation: 28.28427 Mean of the natural logarithms: 3.10731 Standard deviation of the natural logarithms: 1.13805	ampled: 2 thin detection 1 eported values: ed values: 50.(28.28427 ogarithms: 3.10	imits: 2 30.00000 30000

Table C-29. Monitoring data for heptachlor in water.

	Water	#0. of	Repor	Reported values (119/L)	(J)	
Location	type	s amples	Average	Maximum	Coments	Reference
ARGENTINA, PARANA RIYER, 600 KM ABOYE THE MOUTH	2.0	1	0000			
CCVOT MAINTAINTED CANAL	4 T	<u>.</u>	0.0000	0.0300		LENW84
Court of Particular Court	35		0.70000	0.0000		ELSE79
EUTFI, EL-SUTOUF MATER TREATMENT PLANT	35		0.10000	9.0000		E1 SE79
EGIPI, MEMODOLEN	₹¥	_	0.12000	0.0000		FI 5579
EGTPT, ABEES	NST		0.19000	0.0000		67.57
REPUBLIC OF	RIV	12	0.0000	0.02000		KE0772
REPUBLIC OF GERMAN.	RIV	_	0.0000	0.0000	4	HER772
REPUBLIC OF GERMANY,	RIV	15	0.0000	0.01000	1	HER772
REPUBLIC OF GERNAMY,	RIV	_	0.0000	0.0000	ه.	HER272
REPUBLIC OF GERMANY, DUSSELDORF, RHINE RIV	RIV	=	0.0000	0.20500	1	HFR772
REPUBLIC OF GERMANY,	RIV	15	0.0000	0.0000	م	HERZ72
REPUBLIC OF GERMANY.	RIV	two	0.0000	0.0000	م	HER772
OF GERMANY.	RIV	,	0.0000	0.0000	۵	HER272
MERUDALIC OF GERMANY,	RIV		0.05500	0.0000		HER272
OF GERMANY,	RIV	15	0.0000	0.0000	م	HER272
REPUBLIC OF BERIFFEY,	214	_	0.0000	0.0000	م	HER272
METURLIC OF GERTAMY, INGOLSTADT, DAMBE RI	RIV	pine.	000000	0.00000	۵	HERZ72
ACTUALIC OF BEKINNING	RIV		0.0000	0.0000	۵	HER272
REFUGLIC OF SERMANT, RENDSBUNG, NORDOSTSEE	RIV		00000.0	0.0000	£	HER272
ACTUALITY OF SERVINATE	RIV		0.0000	0.0000	۵	HE2772
PEPIPE IC OF	RIV	, -	0.00000	0.0000	۵	HER272
DEBINE IC OF CERTAIN	RIV		0.0000	0.0000	۵	HER772
REFUGLIC OF BEKINNIT, REPUBLIC OF CERMANY	NI N	-	0.0000	0.0000	۵	HERZ72
REPUBLIC OF CERMAN	R 14		0.0000	0.0000	م	HER272
REPUBLIC OF SCRIPTING	818		0.0000	0.0000	ھ	HER272
DEDINE IC OF	R 1		0.0000	0.0000	م	HER272
REPUBLIC OF SCHEMMY, SAU SCHREUK, FMIR RIV	NIV.	gra-	0.0000	0.0000	هـ	HER 272
	RIV	-	0.0000	0.0000	۵	HER272

Table C-29. (Continued)

Type ² Samples Average Haxinum 1, LANGENARGEN, LAKE CONSTANCE LAK 1 0.00000 0.00000 1, ERLANSEN, REGAITZ RIVER RIV 1 0.00000 0.00000 1, HOF, SAALE RIVER RIV 1 0.00000 0.00000 1, HOF, SAALE RIVER RIV 15 0.00000 0.00000 1, BERLIN-GATOM, HAVEL RIVER RIV 15 0.00000 0.00000 NTERSHED, DAM RIVER AT FOUNT RIV 1 0.00000 0.00000 ATERSHED DAM RIVER AT FOUNT RIV 1 0.00000 0.00000 ATERSHED BRN 3 0.00000 0.00000 RIV 1 0.00000 0.00000 RES 1 0.00000 0.00000 R, WOIR RES 1 0.00000 0.00000 R, WORTH RES 1 0.00000 0.00000 R, WORTH RES 1 0.00000 0.00000 R, WORTH RES 1 0.00000 0.00000 R, SOUTH RES 1 0.00000 0.00000 R, SOUTH RES 1 0.00000 0.00000 ENTRANCE RES 1 0.00000 0.000000 ENTRANCE RES 1 0.00000 0.00000 ENTRANCE RES 1 0.000000 ENTRANCE RES 1 0.00000 ENTRANCE RES 1 0.000000 ENTRANCE RES 1 0.00000 ENTRANCE RES 1 0.000000 ENTRANCE RES 1 0.000000	•	Water	No. of	Repo	Reported values (119/L)	19/1)	
REPUBLIC OF GERMANY, LANGEMAGEN, LAKE CONSTANCE LAK 1 0.00000 REPUBLIC OF GERMANY, ENLANGER, REGHITZ RIVER RIY 1 0.00000 REPUBLIC OF GERMANY, BEALIN-GATON, HAVEL RIVER RIY 1 0.00000 ., BERLIN-CHTERFLOE, TELTOMAMAL RIY 15 0.00000 L, LAKE KINNERET LAK KINNERET LAK 21 0.00000 L, LAKE KINNERET WATERSHED DAN RIVER RIY 1 0.00000 L, LAKE KINNERET WATERSHED RIY 1 0.00000 L, LAKE KINNERET WATERSHED RIY 1 0.00000 L, LOKEN JORDAN RIYER RES 1 0.00000 L, LOKEN JORDAN RIYER RES 1 0.00000 L, LOKEN JORDAN RIYER RES 1 0.00000 L, LOKEN JORDAN RIYER RESERVOIR RES 1 0.00000 L, LOKEN JORDAN RIYER RESERVOIR RES 1 0.00000 L, KISHON RESERVOIR ROTH RES 1 0.00000 L, KISHON RESERVOIR ROTH RES	Location	type	samples	Average	Haxinum	Coments	Reference
REPUBLIC OF GERNANT, CREATER RIVER REPUBLIC OF GERNANT, RELAMEER, REGULTS RIVER REPUBLIC OF GERNANT, HOF, SAALE RIVER REVUELLO OF GERNANT, HOF, SAALE RIVER L, LAKE KIRNERET WATERSHED, DAN RIVER AT FOUNT RIV 15 0.00000 LL, LAKE KIRNERET WATERSHED L, KISHON RESERVOIR RESERVOIR RESERVOIR RESERVOIR RESERVOIR RESERVOIR RESERVOIR RESERVOIR RESERVOIR RESSERVOIR RESERVOIR RESSERVOIR RESSERVOIR RESSERVOIR RESERVOIR RESSERVOIR RESSERVO	DEDINE I VE CEDARAN I AMERADEEN 1 AVE CO	•	-	00000	00000	_	J.C. 0222
USELIC OF GERMANT, BEALINESH, REANLIZ RIVER RIV 15 0.00000 USERIC OF GERMANY, HOF, SAALE RIVER RIV 15 0.00000 BERLIA-LICHTERFLOE, TELTOMCANAL LAKE KINNERET WATERSHED, DAR RIVER AT FOUNT RIV 15 0.00000 LAKE KINNERET WATERSHED, DAR RIVER AT FOUNT RIV 16 0.00000 LAKE KINNERET WATERSHED, DAR RIVER AT FOUNT RIV 10.00000 LAKE KINNERET WATERSHED LAKE KINNERET WATERSHED LAKE KINNERET WATERSHED LAKE KINNERET WATERSHED RESHORM RIVER RESHORM RESERVOIR RESHORM RESERVOIR RESS 1 0.00000 GEVAT RESERVOIR KISSON RESERVOIR RESS 1 0.00000 GEVAT RESERVOIR RESS 3 0.00000 GEVAT RESERVOIR RESS 3 0.00000 GONSTAL AQUIFER CONSTAL AQUIFER GAN 1 0.00000 CONSTAL AQUIFER GONSTAL A	ntional of actions, property of the co	§	-	2333	200000	•	נובעריי
UBLIC OF GENWAY, HOF, SAALE RIVER RIV 15 LACE KINERET LAKE KINERET LAKE KINERET LAKE KINERET WATERSHED, DAN RIVER AT FOURT RIV 10 LOCATOR RESERVOIR RES 31 C.00000 LOMEN JORDAN RIVER KISHON RESERVOIR RES 11 C.00000 KISHON RESERVOIR RES 31 C.00000 CONSTAL AQUIFER CO	FEU. REPUBLIC OF GERPONY, ERLANGEN, REGNITZ RIVER	RIV	_	0.02000	0.0000		HER272
PRILITY PRIL	FED, REPUBLIC OF GERMANY, HOF, SAALE RIVER	RIV		0.0000	0.0000	م	HER172
BERLIAL-LICHTERFELDE, TELTOMKANAL RIV 15 7,00000 LAKE KINNERET LAK 21 0,00000 LAKE KINNERET LAKE KINNERET LAKE 21 0,00000 JORDAM RIYER RIV 1 0,00000 JORDAM RIYER RIV 1 0,00000 MESHUSIH RIVER RIV 1 0,00000 LOKE JORDAM RIYER RES 1 0,00000 LOKE JORDAM RIYER RES 1 0,00000 LOKE JORDAM RIYER RES 1 0,00000 RESHOR RESERVOIR RES 1 0,00000 RESERVOIR RESERVOIR RES 3 0,00000 KIISMOM RESERVOIR RESERVOIR RES 3 0,00000 GEVAT RESERVOIR RES 3 0,00000 0,0000 COASTAL AQUIFER GW 1 0,0000 COASTAL AQUIFER GW 1 0,0000 COASTAL AQUIFER GW 1 0,0000 COASTAL AQUIFER 0		×1×	5	0.0000	0.03000		HER272
LAKE KINNERET LAKE KINNERET LAKE KINNERET LAKE KINNERET LAKE KINNERET MATERSHED, DAN RIVER AT FOLMT RIV JORDAN RIVER RESHUGHIN RIVER LAKE KINNERET MATERSHED LOWER JORDAN RIVER LAKE KINNERET MATERSHED LOWER JORDAN RIVER LAKE KINNERET MATERSHED LOWER JORDAN RIVER LOWER JORDAN RIVER RIV 1 0.00000 LOWER JORDAN RIVER RIV 1 0.00000 RESHUOTAR RESERVOIR RES 1 0.00000 RES	F.R.G., BERLIN-LICHTERFELDE, TELTORKANAL	RIV	15	000000	0.0000	۵	HER272
LAKE KINNERET MATERSHED, DAM RIVER AT FOUNT RIV 1 0.00000 JORDAM RIVER MESHUSHIN RIVER LAKE KINNERET MATERSHED LAKE KINNERET MATERSHED LOKEN JORDAM RIVER LOKEN JORDAM RIVER LOKEN JORDAM RIVER LOKEN JORDAM RIVER RIV 1 0.00000 LOKEN JORDAM RIVER RIV 1 0.00000 RISHOR RESERVOIR RES 1 0.00000 GEL-MOTAFA RESERVOIR KISHOM RESERVOIR KISHOM RESERVOIR KES 1 0.00000 GEVAT RESERVOIR KES 3 0.00000 GEVAT RESERVOIR KES 3 0.00000 GEVAT RESERVOIR GAN 1 0.00000 COASTAL AQUIFER GAN 1 0.00000		Γ¥	23	0,0000	0.0000	U	KAHA74
NESHUSHIN RIVER RIVE 1 0.00000	LAKE KINNERET WATERSHED, DAN RIVER AT	RIV		0.0000	0.0000	ں م	KAHA74
LAKE KINNERET WATERSHED	_	RIV	ø	0.0000	0.00060	່ ບ	KAHA74
LAKE KINNERET WATERSHED LOWER JGRDAN RIVER YASJUGR RESERVOIR YASJUGR RESERVOIR KISHON RESERVOIR K		RIV:	-	0.0000	0.0000	o , c	KAHA74
LOWER JORDAN RIVER RIV 1 0.00000 YASJOR RESERVOIR RFS 1 0.00000 961-MOTAFA RESERVOIR RES 1 0.00000 KISHOM RESERVOIR RES 1 0.0000 KISHOM RESERVOIR RES 3 0.0000 KISHOM RESERVOIR RES 3 0.0000 KISHOM RESERVOIR RES 3 0.0000 GEVAT RESERVOIR RES 3 0.0000 GEVAT RESERVOIR RES 4 0.0000 GEVAT RESERVOIR RES 3 0.0000 COASTAL AQUIFER GM 1 0.00000		8	m	0.0000	0.0000	, 0	KAHA74
YASJUOR RESERVOIR RFS 1 0.00000 BEL-MOTAFA RESERVOIR RES 1 0.00000 KISHOM RESERVOIR, MORTH RES 1 0.00000 KISHOM RESERVOIR, MORTH RES 3 0.00000 KISHOM RESERVOIR, MORTH RES 3 0.00000 KISHOM RESERVOIR, MORTH RES 3 0.00000 GEVAT RESERVOIR RES 3 0.00000 GEVAT RESERVOIR RES 4 0.00000 COASTAL AQUIFER GW 1 0.00000 COAS		RIV	_	000000	0.0000		KANKA74
BEL-MOTAFA RESERVOIR RES 1 0.00000 KISHON RESERVOIR, MORTH RES 1 0.00000 KISHON RESERVOIR, MORTH RES 3 0.00000 KISHON RESERVOIR, MORTH RES 3 0.00000 KISHON RESERVOIR, MORTH RES 3 0.00000 GEVAT RESERVOIR RES 4 0.00000 GEVAT RESERVOIR RES 4 0.00000 COASTAL AQUIFER GW 1 0.00000 COASTAL AQUIFER 0.00000 0.00000 COASTAL AQUIFER		RFS	_	0.0000	0.0000	۵, د	KAHA74
KISHOM RESERVOIR KISHOM RESERVOIR KISHOM RESERVOIR, MORTH RES 3 0.00000 KISHOM RESERVOIR, SOUTH RES 3 0.00000 GEVAT RESERVOIR RES 6W 1 0.00000 COASTAL AQUIFER GAN 1 0.00000		RES	_	0.0000	0.0000	م ' د	KAHA74
KISHON RESERVOIR, MORTH RES 1 0.00000 KISHON RESERVOIR, SOUTH RES 3 0.00000 GEVAT RESERVOIR RES 3 0.00000 GEVAT RESERVOIR RES 3 0.00000 GEVAT RESERVOIR RES 3 0.00000 COMSTAL AQUIFER GW 1 0.00000 COASTAL AQUIFER GW 1 0.00000		RES		0.0000	0.0000	۵,	KAHA74
KISHOR RESERVOIR, SOUTH RES 3 0.00000 GEVAT RESERVOIR RES 3 0.00000 GEVAT RESERVOIR RES 4 0.00000 GEVAT RESERVOIR RES 1 0.00000 ZOHAR RESERVOIR RES 1 0.00000 ZOHAR RESERVOIR GW 1 0.00000 COASTAL AQUIFER GW 1 0.00000		RES	~	0.0000	0.0000) , 0	KAHA74
GEVAT RESERVOIR RES 3 0.00000 GEVAT RESERVOIR ENTRANCE RES 4 0.00000 ZOHAR RESERVOIR RES 1 0.00000 ZOHAR RESERVOIR GEN 1 0.00000 COASTAL AQUIFER GIN 1 0.00000	KISHON RESERVOIR,	RES	m	0.0000	0.0000	ပ ရ	KAHA74
GEVAT RESERVOIR RES 4 0.00000 ZOHAR RESERVOIR RES 1 0.0000 ZOHAR RESERVOIR GM 1 0.0000 COASTAL AQUIFER GM 1 0.0000	_	RES	٣	0.0000	0.0000	ه. د	KANA74
20MAR RESERVOIR 20MAR RESERVOIR 0.00000 COASTAL AQUIFER 6M 1 0.00000 COASTAL AQUIFER 6W 1 0.00000		RES	•	0.0000	0.0000) ,	KAHA74
COASTAL AQUIFER COASTAL AQUIFE		RES	,	0.0000	0.0000	<u>ں</u> م	KAHA74
COASTAL AQUIFER COASTA		75	-	0.0000	0.0000	٩	LAHA74
COASTAL AQUIFER 6.N 1 0.00000	COASTAL	3	,	0.0000	0.0000	ص	LAHAZA
COASTAL AQUIFER GN 1 0.00000	COASTAL	7 <u>4</u>	, marin	0.0000	0.0000	م	LAHA74
COASTAL AQUIFER 6.W 1 0.00000	COASTAL	35	_	0.0000	0.0000	۵	LAHA74
COASTAL AQUIFER 6W 1 0.00000	COASTAL	3		0.0000	0.0000		1 AHA74
COASTAL AQUIFER 6W 1 0.00000 COASTAL AQUIFER 6W 1 0.00000 COASTAL AQUIFER 6W 1 0.00000	COASTAL	75	_	0.0000	0.0000	م	LAHAZA
COASTAL AQUIFER 6W 1 0.000C0 COASTAL AQUIFER	COASTAL	75	,	0.0000	0.0000	۵	LAHA74
COASTAL ADUITER	COASTAL	35	_	0.0000	0.0000	æ	LAHAZA
annon a series of the series o		3	_	0.0000	0.0000	_	LAHA74

Mean of the natural logarithms: -3.06333 Standard deviation of the natural logarithms: 1.76081

Table C-29. (Continued)

4.	Water	16. of	Rep	Reported values (119/L)	(n/s/t)	
Location	type	saidies	Average	Haxinum	Coments	Reference
I SRAEL, COASTAL AQUIFER	7.9	-	υυου ο ·	00000		76,500
ISPAEL, CONSTAL AQUIFER	3		00000	20000	3 4	CARLO
ISRAEL, COASTAL AQUIFER	35		0.0000	0.0000	a 4	[###/4 ###74
ITALY, PO RIVER	RIV	82	0.0000	0.0000	ę A	SE AS
ITALY, ADIGE RIVER	RIV	38	0.0000	0.0000	9	GW AB I
ITALY, COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN	35	s	0.01000	0.13000	•	PO FR3
KENYA, MAKIRU MATIONAL PARK, ESE MAKIRU	LAK	,	0.0000	0.0000	۵	ERE 178A
KHOLESIA, LAKE MCILWAINE	ž	gary	0.0000	0.0000	۵	6851788
<pre>a Water types: BRK = brackish; CAN = canel; CIS = cistern; CRK = creek; DRN = drishage; GN = ground water; LAK = lake; OCE = ocean; PAD = paddy; PNO = pond; RES = reservoir; RIV = river; RNF = renoff; SN = surface water; TAP = tap walk water water. b Not detected. C Detection limit < l ng/L. d Detection limit = l ng/L.</pre>	is = cistern; water; LAK = lake; s = reservoir; mater; TAP = tap water;	i i i i i i i i i i i i i i i i i i i	Statistics: Number of 18 Number of 58 Hean of the Highest of Standard de	Statistics: Number of locations sampled: 64 Kumber of samples within detection Mean of the highest reported value Highest of the reported values: Standard deviation: 0.18510 Hean of the natural logarithms:	Statistics: Number of locations sampled: 64 Number of samples within detection limits: 13 Mean of the highest reported values: 0.70000 Standard deviation: 0.18510 Hean of the natural logarithms: -3.06333	12.389 1.2389 3.33

Table C-30. Monitoring data for heptachlor epoxide in water.

	Kater	No.	Rep	Keported values (119/L)	49/L)	
Location	type	samples	Average	Haxfaun	Coments	Reference
FED. REPUBLIC OF GERMANY, HAMBURG, ELSE RIVER	RIV	. 21	0.0000	0.0000	م	HER172
FED. REPUBLIC OF GERMANY, LAUENBURG, ELBE RIVER		- Carre	0.02500	0.0000	ı	HEB712
REPUBLIC OF GERMANY.		15	0.0000	0.0000	۵	HER272
FED. REPUBLIC OF GERMANY, ACHIM, NESER RIVER	RIV	-	0.0000	0.0000	ھ	HER 272
REPUBLIC OF GERMANY, DUSSELDORF, RHINE	RIVER	=	0.0000	0000000	۵	HERZ72
REPUBLIC OF GERMANY.		15	0.0000	0.0000	۵	HER272
REPUBLIC OF GENNANT, WESEL, RHINE RIY	RIV	_	0.0000	0.0000	۵	HERITZ
FEG. REPUBLIC OF GERMANY, ST. GOAR, RHINE RIVER	IVER RIV		0.0000	0.0000	۵	HER272
REPUBLIC OF	IVER RIV		0,00000	000000	م	HER172
OF GERMANY, JOCHENSTEIN, DAM	UBE RIVER RIV	15	0.0000	0.0000	۵	HER 772
REPUBLIC OF	218		0,0000	0.0000	٩	HER272
FED. REPUBLIC OF GERMANY, INGOLSTADT, DANUBE RIVER	E RIVER RIV		0,0000	0.0000	٠	HER 272
REPUBLIC OF GEPHARES.	RIVER	_	0,0000	0.0000	_	HERZ72
REPUBLIC OF	ISEEKANAL RIV	,	0.0000	0.0000	•	HER 272
REPUBLIC OF GERMANY, BRANSCHE, MITTELL	ANDKANAL RIV	_	0.03500	000000		HER272
REPUBLIC OF SERIMAN,	RIV	_	0.0000	0.0000	۵	HER272
REPUBLIC OF GERNANY, DUISBURG, RUHR RI		_	000000	0.0000	۵	HER 272
REPUBLIC OF SERMANY, SIEGBURG, SIEG RI			0.0000	0.00000	۰	HER 272
REPUBLIC OF GERMANY, FACHBACH, LAHN RI	_		0.0000	00000*0	۵	HER272
REPUBLIC OF GERMANY, KOGLENZ, MOSELLE	ger,	_	0.0000	0.0000	•	HER 272
REPUBLIC OF GERMANY, RAUMHEIM, MAIN RI	-		0.0000	0.0000	٥	HERZ72
KEYUBLIC OF GERMANT, BAD BERNECK, MAIN			0.0000	0.0000	۵	HER 272
REPUBLIC OF GERMANY, HEIDELBERG, MECKAN		***	0.0000	0.0000	۵	HER172
REPUBLIC OF GERMANY, LANGENARGEN, LAKE	#CE	-	0.0000	0.0000	۵	HER 272
REPUBLIC OF GERMANY, ERLANGEN, REGNITZ	RIVER	-	0.04000	000000		HER 272
REPUBLIC OF GERMANY, HOF, SAALE RIVER			0.0000	0.0000	م	HER172
FED. REPUBLIC OF GERNAMY, BERLIN-GATON, HAVEL RI	EL RIVER RIV	35	00000*0	00000-0	۵	HER272

Table C-30. (Continued)

Location F.R.G., BERLIN-LICHTERFELDE, TELTOMKANAL SSRAEL, LAKE KINNERET ISRAEL, LAKE KINNERET ISRAEL, JORDAN RIVER ISRAEL, JORDAN RIVER ISRAEL, MCSHUSHIM RIVER ISRAEL, LAKE KINNERET WATERSHED ISRAEL, JORDAN RIVER saldaes	Average				
BERLIN-LICHTERFELDE, TELTOMKANAL LAKE KINNERET LAKE KINNERET WATERSHED, DAN RIVER AT FOUNT JORDAN RIVER NESHUSHIM RIVER LAKE KINNERET WATERSHED	Ş		Fex Years	Comments	Reference
LAKE KINNERET LAKE KINNERET MATERSHED, DAN RIVER AT FOUNT JORDAN RIVER MESHUSHIM RIVER LAKE KINNERET MATERSHED		O. DOTOO	O COOLO		HEB773
LAKE KINNERET WATERSHED, DAN RIVER AT FOUNT JORDAN RIVER NESHUSHIM RIVER LAKE KINNERET WATERSHED	: :			,	
JORDAN RIVER NESHUSHIM RIVER LAKE KIMIRRET WATERSHED JORDAN RIVER (LOMER)	;	0.000	00000	ں و مُ دُ	KAHA74
NESHUSHIM RIVER LAKE KIMMERET WATERSHED JORDAN RIVER (LOMER)	9	0.0000	0.0000	, d	K AHA74
LAKE KIMERET WATERSHED JORDAN RIVER (LOMER)	<u></u>	0.0000	0000000	, u	KANA74
JORDAN RIVER (LOJER)	m	0.0000	0.0000	•	KAHA74
	-	0.0000	0.0000) ,	KAHA74
YASUOR RESERVOIR	_	0.0000	0.0000	۵,	KAHK74
BEL-HOTAFA RESERVOIR	,	0.0000	0.0000	, o	KAHA74
, KISHON RESERVOIA	_	0.0000	0.0000	p , c	KANA74
KISHON RESERVOIR, MORTH	-	0.0000	0.0000	b , c	KAMA74
KISHOM RESERVOIR, SOUTH	m	0.0000	0.0000	, o	XAHA74
	m	0.0000	0.0000	0	KAM74
GEVAT RESERVOIR (ENTRANCE)	~	0.0000	0.0000	0	KAHA74
ZOHAR RESERVOIR	, co	0.0000	0.0000	٠ •	KAHA74
CONSTAL AQUIFER	-	0.0000	0.0000	م	LAHA74
COASTAL AQUIFER	_	00000.0	00000,0	۵	LAM74
CONSIAL AQUIFER	-	0.0000	0.0000	4	LAHA74
COASTAL AQUIFER	pri	00000-0	0.0000	۵	LAHA74
COASIAL AQUIFER	_	0.0000	0.0000	۵	LAHA74
CONSTAL AQUIFER		0.0000	0,0000		LAHK74
COMSTAL		0.0000	0.0000	۵	LAWA74
CONSTAL AQUIFER	-	0.0000	0.0000	٩	LABA74
CUNSIAL AQUIFER	_	0.0000	0.0000	م	LAHA74
CONSIAL AQUIFER	-	00000-0	00000*0	۵	LAHA74
CONSIGN AUGUST		0.0000	0.0000	۵	LAHA74
LONGIAL AQUINER	_	0.0000	0.0000	•	LAHA74

Table C-30. (Continued)

	Hater	1 00 00	Rep	Reported values (19/L)	(16A)	
Location	type	samples	Average	Haxfana	Comments	Reference
ITALY, PO RIVER	RFV	82	0,0000	00000-0	۵	GALA81
ITALY, ADIGE RIVER	RIV	8	0.0000	0.0000		GA 431
ITALY, COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN	š	w	0.0000	0.0200	•	PQLE83
KENYA, MAKURU MATIONAL PARK, LAKE MAKURU	Ľ¥	_	0.0000	0.0000	۵	GRF 178A
RHODESIA, LAKE MCILLAINE	Š		0.0000	0.0000	ه ه	3821389
USA, CALIFORNIA	3	22	0.0000	0.00000	, 7	MADD82
Water Types: BRK = brackish; CAM = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RIV = river; RMF = runoff; SM = surface water; TAP = tap water; WST = waste water. Detection limit <1 ng/L. Detection limit = 2 ng/L. Detection limit = 5 ppb.	tem; L/K = lake; rvoir; AP = tap wat	i	Statistics: Number of 1s Number of s Hean of the Standard de Standard de Standard de Iogarithm	Statistics: Number of locations sampled: 50 Number of samples within detection Mean of the highest reported valued tighest of the reported values: Standard deviation: 0.00913 Hean of the natural logarithms: Standard deviation of the natural logarithms:		n limits: 4 es: 0.03000 0.04000

Table C-31. Monitoring data for hexachlorobenzene in water.

	Water	Ho. of	&	Reported values (19/L)	(1/6 1)	•
Location	type	samples.	Average	Haximum	Coments	Reference
BELGIUM, EYSDEM, RIVER MEUSE	RIV	ص	00000-0	60010-0		WEG998
GERMANY, BELLINGEN, RHINE RIVER	RIV	.	0.02000	0.0000		MEG908
GERMANY, ARTZEMIEIM, RHINE RIVER	RIV	۵	0.04000	00000		MEG978
GERMANY/FRANCE, STRASBOURG, RHINE RIVER	RIV	۵	0.03000	0,0000		MEGH78
GERMANY, KARLSRUNE, RHINE RIVER	RIV	م	0.05000	0.0000		NEGIO 8
GERMANY, LUDNIGSHAFEN, RHINE RIVER	RIV	۵	0.03000	0.0000		MEGIOS
Germany, Mainz, Rhine River	RIY	م	0.04000	0.0000		MEGIO 8
GERMANY, LEVERKUSEN, RHINE RIVER	RIV	م	0.03000	0.0000		MEGNUS.
GERMANY, DUISBURG, BRINE RIVER	RIV	۵	0.04000	0.0000		MESTO 8
ITALY, MEDITERBANEAN SEA		29	0.0000	0.00001		PUCCBO
ITALY, MEDITERBANEAN SEA	OCE	20	0.0000	0000000	U	PUCCBO
ITALY, MEDITERRANEAN SEA	300	•	0.0000	0.0000	U	PUCCBO
NETHERLANDS/GERNANY, LOSITH, RHINE RIVER	RIV	۵	0.06000	0.0000	1	NEGP78
NETHERLANDS, ROTTERDAN, RHINE RIVER	RIV	۵	0.01000	0.0000		MEGR/78
NETHERLAMOS/GERMANY, LOBITH, RHINE RIVER	RIV	۵	0.0000	0.14000		MEGF78
SMITZERLAND, RHEINFELDEN, RHINE RIVER	NI%	م	0.0000	0.0000		MEGHO'S
SHITZERLAND, BASEL, RHINE RIVER	RIV	4	0.04000	0.0000		MEGNO 8

* Water types: BRK = brackish; CAR = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAK = lake;

OCE = ocean; PAD = paddy; PND = pond; RES = reservoir;

RIV = river; RMF = runoff; SW = surface water; IAP = tap water;

WST = waste water.

b Uncertain. C Not detected.

Highest of the reported values: 0.14000 Standard deviation: 0.03348

Mean of the natural logarithms: -3.98612 Standard deviation of the matural logarithms: 2.26861

Number of samples within detection limits: 14 Mean of the highest reported values: 0.03857

Number of locations samples: 17

Statistics:

Table C-32. Monitoring data for malathion in water.

	1	4	Repo	Reported values (19/L)	(1/6H)	
Location	types	samples	Average	Haximum	Coments	Reference
NETHERLANDS/GERMANY/SHITZERLAND, RHINE RIVER	RIV	٩	00010.0	0.0000		GREV72
NETHERLANDS/GERMANY/SUITZERLAND, RHINE RIVER	RIV	۵	0.01000	0.0000		GREV72
INDIA, CALCUTTA	35	₫*	0000000	0.0000	U	MUKURBO
INDIA, CALCUITA GANGES RIVER	RIV	2	0.0000	0.0000	U	PRUKUHBO
INDIA, CALCUTTA	35	2	0000000	0,0000	v	MUKURBO
INDIA, CALCUTTA	GNJ	2	1600,00000	0.0000		MUCHBO
ISRAEL, LAKE KINNERET	ž	82	0.30200	0.0000	•	KANA74
I SRAEL, JORDAN RIVER	RIV	9	0.0000	0.0000	υ .	KAHA74
ISRAEL, LAKE KINNERET NATERSHED	CRM	m	00000-0	0.0000	G. G.	KANA74
ISRAEL, JORDAN RIVER (LONER)	RIV	_	0.0000	0,0000	c, d	KAWA74
I SRAEL, YASUOR RESERVOIR	RES		00000.0	000000	0.	KAHA74
I SRAEL, KI SHON RESERVOIR	RES	_	0.0000	0.0000	C. 6	KAHA74
I SRAEL, ZOHAR RESERVOIR	RES		0.0000	0.00000	C. d	KAHA74
USA, CALIFORNIA	79	27	0.0000	0.0000	C, e	MADDB2
VIRGIN ISLANDS, ST. THOMAS	CIS	15	00000	0.14000		LEM072
VIRGIN ISLANDS, ST. JOHN	CIS	=	0.0000	0.01000		LEN072

Water types: BRK = brackish; CAN = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RIV = river; RNF = runoif; SW = surface water; TAP = tap water; WST = waste water.

b Uncertain.

C Not detected.

d Detection limit <1 ng/L.

* Detection limit * 5 ppb.

Statistics:
Number of locations sampled: 16
Number of samples within detection limits: 6
Mean of the highest reported values: 266.74533
Highest of the reported values: 1600.00000
Standard deviation: 653.15874
Mean of the natural logarithms: -1.60014

Standard deviation of the natural logarithms: 4.64744

Table C-33. Monitoring data for methoxychlor in water.

	Water	No. of	Repo	Reported values (19/L)	7.	
Location	type	samples	· Average	Hax fare	Comments	Reference
KENYA, MAKURU MATIONAL PARK, LAKE MAKURU RHODESIA, LAKE MCILWAINE REP. S. AFRICA, TRANSVAAL, HARTBEESPOORT DAM REP. S. AFRICA, CAPE PROVINCE, VOELVLEI DAM USA, CALIFORNIA	5	22	00000° 0 00000° 0 00000° 0	0.0000 0.0000 0.0000 0.0000 6.0000	ث معمد	GRE178A GRE178 GRE177 GRE177 NADO62

RIV = river; RNF = runoff; SW = surface water; TAP = tap water; a Water types: BRK = brackish; CAN = canal; CIS = cistern;
CRK = creek; DRN = drainage; GW = ground water; LAK = lake;
OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; WST = waste water.

Number of samples within detection limits: 0

Number of locations sampled: 5

Statistics:

C Detection limit = 5.0 ppb. ^b Not detected.

Table C-34. Monitoring data for mevinphos in water.

	2	4	Repor	Reported values (119/L)	gh.)	
Location	type	samples .	Average	Haximum	Comments	Reference
AUSTRALIA, NAMDI VALLEY, NEE MAA, N.S.N. USA, CALIFORNIA	C1 S	30 .	0.0000	0.0000	D, C d, ≥	OUM 74 MADDB2
* Water types: BRK * brackish; CAN = canal; CIS = cistern; CRK = creek; DRN = drainage; GN * ground water; LAK * lake; OCE = ocean; PAD * paddy; PND = pond; RES * reservoir; RIV = river; RNF = runoff; SN * surface water; TAP * tap water; WST = waste water. Average detected< 0.10 ppb. C From roof tanks in town. d Not detected. © Detection limit = 5.0 ppb.	= cistern; ter; LAK = lake; reservoir; er; TAP = tap wat	ن	Statistics: Number of 1c	Statistics: Number of locations sampled: 2 Number of samples within detect	Statistics: Number of locations sampled: 2 Number of samples within detection limits:	6 ::

Table C-35. Monitoring data for oxadiazon in water.

	S contract of the contract of	4	Rep	Reported values (119/L)	(1/6n)	
Location	type	samples .	Average	Max faum	Comments	Reference
JAPAN, KITAKYUSHU DISTRICT, MURASAKI RIVER	RIV	=	0.0000	1.08000		YAMBOA
JAPAH, KITAKYUSHU DISTRICT, HIGASHITANI RIYER	RIV	11	0.0000	1.95000		YAMAROA
JAPAN, KITAKYUSHU DISTRICT, NISHITANI RIVER	RIV	=	0.0000	1.16000		YAMBOA
JAPAM, KITAKYUSHU DISTRICT, TONDA RESERVOIR	35	=	0.0000	0.30000		YAMAROA
JAPAN, KITAKYUSHU DISTRICT, ONGA RIVER	RIV		0.0000	0.45000		YAMBOA
JAPAM, TOBATA-KU, KITAKYUSHU	TAP	gana gana	0.0000	0.10000		YAMABOA
* Water types: BRK = brackish; CAN = canal; CIS = cistern; CRK = creek; DRN = drainage; GW = ground water; LAK = OCE = ocean; PAD = paddy; PND = pond; RES = reservoir RIV = river; RNF = runoff; SW = surface water; TAP = NSI = waste water.	CIS = cistern; id water; LAK = lake; RES = reservoir; water; TAP = tap water;	j.	Statistics: Number of 11 Number of 5 Mean of the Highest of Standard de Nean of the	Statistics: Number of locations sampled: 6 Number of samples within detection Mean of the highest reported values: Standard deviation: 0.69042 Mean of the natural logarithms: Standard deviation of the natural	Statistics: Number of locations sampled: 6 Number of samples within detection limits: 6 Nean of the highest reported values: 0.84000 Highest of the reported values: 1.95000 Standard deviation: 0.69042 Nean of the natural logarithms: -0.56864 Standard deviation of the natural	n limits: 6 hes: 0.84000 1.95000 -0.56864

Table C-36. Monitoring data for parathion in water.

•	Kater	No.	Repo	Reported values (μg/L)	9/د)	
Location	type	samples .	Average	Hax imum	Comments	Reference
ARGENTINA, PARANA RIVER, 600 KM ABOVE THE MOUTH	RIV	*	0.02200	0.06500	م	LENA84
ARGENTINA, SALADO RIVER	RIV	•	0.02700	0.0000		LENA84
ARGENTINA, PARQUE GENERAL, BELGRANO LAKE	LAK	=	0.03400	0.0000		LENA84
ARGENTINA, SETUBAL LAKE	LAK	7	0.04300	0.0000		LENA84
AUSTRALIA, HAMDI VALLEY, NEE MAA, M.S.N.	CIS	30	00000-0	0.0000	U	OUH 74
FED. REPUBLIC OF GERMANY, MANBURG, ELBE RIYER	RIV	22	0.0000	0.0000	70	HER272
REPUBLIC OF GERMANY, LAUENBURG, ELBE	RIV	-	0.0000	0.0000	70	HER272
REPUBLIC OF	RIV	15	0.0000	0.0000	70	HER 272
REPUBLIC OF	RIV	_	00000.0	0.0000	70	HER 272
REPUBLIC OF GERMANY,	RIV	=	0.0000	0.05500		HER272
REPUBLIC OF	RIV	15	00000°0	0.00500		HER272
REPUBLIC OF	RIV	_	0.0000	0.0000	70	HER272
REPUBLIC OF GERMANY, ST. GOAF, RHINE	RIV	-	0.0000	0.0000	•	HER 272
REPUBLIC OF	RIV	-	0.0000	0.0000	Ð	HER272
REPUBLIC OF GERMANY,	RIV	15	0.0000	0.0000	70	HER 272
REPUBLIC OF	RIV		0.0000	0.0000	7	HERZ72
REPUBLIC OF GERMANY,	RIV	_	0.0000	0.0000	79	HER272
REPUBLIC OF GERMANY, GEISINGEN, DAMM	RIV	-	0.0000	0.0000	70	HER272
REPUBLIC OF GERMANY, RENDSBURG, NORDO	RIV	,	0.0000	0.0000	70	HER272
REPUBLIC OF	RIV	_	0.0000	0.0000	7	HER272
REPUBLIC OF GERMANY, RHEINE, EMS RIVE	RIV	_	0.0000	0.0000	70	HER272
REPUBLIC OF GERMANY, DUISBURG, RUHR A	RIV	_	0.0000	0.0000	70	HER272
REPUBLIC OF GERMANY, SIEGBURG, SIEG R	RIV	_	0.0000	0.0000	79	HER272
REPUBLIC OF GERMANY.	RIV	_	0.0000	0.0000	70	HER272
REPUBLIC OF	RIV	_	0.0000	0.0000	79	HER 272
REPUBLIC OF GERMANY, RAINHEIM, MAIN R	RIV	_	0.0000	0.0000	70	HER 272
FED. REPUBLIC OF GERMANY, BAD BERNECK, MAIN RIVER	RIY	_	0.0000	0.0000	70	HER <i>1</i> 72

Table C-36. (Continued)

	Mater	No. of				
Location	type	samples .	Average	Haximum	Comments	Reference
FED. REPUBLIC OF GERMANY, HEIDELBERG, MECKAR RIVER	RĮV	_	0,0000	0.0000	7	HER272
FED. REPUBLIC OF GERMANY, LANGEMARGEN, LAKE CONSTANCE	רא	_	0.0000	0.0000	70	HER272
	RIV	-	0.0000	0.0000		HER272
	RIV		0.0000	0.0000	75	HER272
FED. REPUBLIC OF GERMANY, BERLIN-GATON, HAVEL RIVER	RIV	5	0.0000	00000"0	7	HER272
F.R.G., BERLIN-LICHTERFELDE, TELTORKANAL	RIV	15	0.0000	0.06500		HER 272
METHERLANDS/GERMANY/SWITZERLAND, RHINE RIVER	RIV	ø	0.03000	0.0000		GREV72
NETHERLANDS/GERMANY/SHITZERLAND, RHIME RIVER	RIV	·	0.07000	0.0000		GREV72
INDIA, SATHIAR RESERVOIR	RES	2	0.00400	0.00430		KANN79
INDIA, SATHIAR RESERVOIR	ŔES	12	0.0000	0.00900		KAN79
INDIA, SATHIAR RESERVOIR	RES		0.00340	0.0000		KANN79
USA, CALIFORNIA	A9	23	0.0000	0.0000	đ, f	MAD082
* Water types: BRK = brackish; CAN = canal; CIS = cistern;	era;		Statistics:			
CRK = creek; DRM = drainage; GW = ground water; LAK = lake;	AK - lake;		Number of	Number of locations sampled: 39	led: 39	
OCE = ocean; PAD = paddy; PND = pond; RES = reservoir;	voir;		Number of	lumber of samples within detection limits:	detection lim	ifts: 12
RIV = river; RMF = runoff; SM = surface water; TAP = tap water;	P = tap wat	er;	Mean of th	Mean of the highest reported values: 0.03423	rted values:	0.03423
HST = waste water.			Highest of	Highest of the reported values:	values: 0.07000	8
Standard deviation of samples = 22.70 ng/L			Standard d	Standard deviation: 0.02539	2539	
From roof tanks in town.			Hean of th	Mean of the natural logarithms:	rithms: -3.81787	787
"Not detected.			Standard d	Standard deviation of the natural	e natural	
c Uncertain.			logarith	logarithms: 1.14605		

Table C-37. Monitoring data for methylparathion in water.

	Vater	Ho. of	Repo	Reported values (µg/L)	(1/61	
Location	type	samples	Average	Hax terum	Comments	Reference
ARGENTIMA, PARAMA RIVER, 600 KM ABOVE THE MOUTH	RIV	=	0.0000	0.17400		LEM84
EGYPT, PORT-SAID MED. SEA, N SUEZ CANAL ENTRANCE	900	82	3.00000	96.00000	þ.	BADA84
INDIA, MYSORE DISTRICT	70	13	000000	1300,00000	•	RAJUB2
USA, CALIFORNIA	79	27	0.0000	0.0000	e, f	PADD82
* Water types: BRK = brackish; CAN = canal; CIS = cistern;	istern;		Statistics:	S:		
CRK = creek; DRN = drainage; GW = ground water; LAK = lake;	; LAK - lake;		Number of	tumber of locations sampled: 4	oled: 4	
N.C ocean; rwu = peody; rwu = pond; kt.> = re RIV = river; RWF = runoff; SW = surface water;	:> = reservoir; water; IAP = tap water;	er;	Number of the Nesn	Number of samples within detection limits: 3 Mean of the highest reported values: 465.39133	n detection l orted values:	imits: 3 465.39133
MST = waste water.			Highest o	Highest of the reported values: 1300.00000	values: 130	0.0000
Detection limit = 0.1 µg/L.			Standard	Standard deviation: 724.37861	4.37861	
C Accidental spill.			Hean of t	Hean of the natural logarithms: 3.32865	arithms: 3.3	2866
d Uncertain.			Standard	Standard deviation of the natural	he natural	
e Not detected.			logarit	logarithms: 4.58612		
T Detection limit = 5.0 ppb.						

Table C-38. Monitoring data for phosphamidon in water.

	Water	Ko. of		Repo	Reported values (119/L)	(nø/r)	
Location	type	samples	:,	Average	Hax faum	Comments	Reference
IRAN USA, CALIFORNIA	PA0 GV	80		0.0000.0	110.00000) ° ¢	TE1109 HAD082
A Water types: BRK = brackish; CAM = canal; CIS = cistern; CRK = creek; DRM = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir; RIV = river; RNF = rumoff; SW = surface water; TAP = tap water; WST = waste water. b Not detected. C Detection limit = 5 ppb.	n; (= lake; oir; = tap wa	ļ ::		Statistics: Number of la	Statistics: Number of locations sampled: 2 Number of samples within detect	Statistics: Number of locations sampled: 2 Number of samples within detection limits:	imits: 1

Table C-39. Monitoring data for toxaphene in water.

	Water	No. of	Repo	Reported values (119/L)	٨)	
Location	type	samples	Average	Haximus	Coments	Reference
AUSTRALIA, NANDI VALLEY, NEE MAA, N.S.W.	CIS	30	0.0000	0.0000) é	CRIW 74
KENYA, MAKURU MATIONAL PARK, LAKE MAKURU	LAK	-	0.0000	0.0000		68F1784
KENYA, NZOIA RIVER CATCHERT	RIV	para.	0.0000	0.0000	• •	KALI.
KERTA, NZOIA RIVER CATCHEENT	RIV	13	0.0000	0.0000	4.	KAL177
KENYA, LAKE MAKURU	LAK	6	0.0000	0.0000	· •	KAL177
KEMTA, LAKE ELEMENTEITA	Γ¥	O N	0.0000	0.0000	•	KAL 77
KENTA, LAKE MAIVASHA	LAK	(Sh	0.0000	0.0000	· e	KAL17
Kenya, maleya river	RIV	50	0.0000	0.0000	u	KAL177
KENYA, GILGIL RIVER	RIV	C 1	000000	0.0000	•	KAL17
RHOUESIA, LAKE MCILMAINE	LAK	_	0.0000	0.0000	70	GRE 1788
REP. S. AFRICA, TRANSVAM, HARTBEESPOORT DAN	LAK	_	0.0000	0.0000	70	GRE 177
ALP. S. AFRICA, CAPE PROVINCE, VOELVLEI DAN	LAK	,	0.0000	0.0000	7	GRE177
USA MARANIA MARTSELLE, FLINT CREEK	CR	13	0.00700	0.41000		MICH64
USA, MISCORSIM, OTTOMA LAKE	LÆ	,- -	2.20000	0.0000		HUGH70
USA, MISCONSIN, OTTHAN LAKE	EAK	~	2,10000	13.70003		HUGH70
USA, MISSISSIPPI VALLEY MATERSHED	RMF	9	7.50000	20.90000		W121.83
USA, CALIFORNIA	3 5	22	0,0000	0.0000	٠. ت	MO982
USA, LAKE MUKUM	ž	5.	0.00050	0.00210	•	SWA! 82

RIV = river; P.NF = rumoff; SW = surface water; TAP = tap water; CRK = creck; DRN = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PMD = pond; RES = reservoir; Water types: BRK = brackish; CAN = canal; CIS = cistern; WST - waste water.

b Average detected <0.10 ppb. c from roof tanks in toun.

d No. detected.

e Average detected <20.00 ppb. f Average detected <0.50 ppb.

 9 Uncertain. h Detection limit = 5.0 ppb.

Number of samples within detection limits: 5 Mean of the highest reported values: 7.44242 Highest of the reported values: 20.90000 Mean of the natural logarithms: -0.12227 Standard deviation of the natural Standard deviation: 9.38829

Number of locations sampled: 18

Statistics:

logarithms: 3.72309

Table C-40. Monitoring data for trifluralin in water.

· ·	n eta	, c	Rep	Reported values (1991)	(1/6rk)	
Location	type	samples.	Average	Hax faum	Comments	Reference
ISRAEL, LAKE KIMERET	LAK		0.0000	Supple o	4	A CAMAY
I SRAEL, JORDAN RIVER	RIV		0.0000	0.000	, (a. a.	* AUR 7
I SRAEL, LAKE KINNERET WATERSHED	DRN	******	0,0000	0.0000	ب ر م	KAMA74
ISMEL, JORDAN RIVER (LONER)	RIV	-	0.0000	0.0000	, d	K 4844.74
I SRAEL, YASUOR RESERVOIR	RES	*14	0.00000	0.0000	, d	KAWA74
I SKAEL, KI SHOM RESERVOIR	RES	 -	0.0000	0.0000	່ ບໍ່ ລ	XAHA74
ISRAEL, ZOKAR RESERVOIR	RES	144	0.0000	0.0000	, o	KAHA74
USA, MISSISSIPPI VALLEY WATERSHED	RMF	¥ £ ï	0.10000	6.80000	1	WILL83

Water types: BKK = brackish; CAM = canal; CIS = cistern;
CRK = creek; DRM = drainage; GW = ground water; LAK = lake;
OCE = ocean; PAD = paddy; PMD = pond; RES = reservoir;

RIV - river; RNF - runoff; SW - surface water; TAP - tap water;

Number of samples within detection limits: 1

Number of locations sampled: 8

Statistics:

WST = waste water.

b Not detected.

C Detection limit < 1 ng/L.

Table C-41. Monitoring data for trithion in water.

	100	3	Rep	Reported values (µg/L)	1%1)	
Location	type	samples	Average	Naz fram	Coments	Reference
USA, CALIFORNIA USA, CALIFORNIA	#5 #5	27	00000*0	0.0000	o . 6	PADD82 PADD82
* Water types: BRK = brackish; CAN = canal; CIS = cistern; CRK = creek; DRK = drainage; GW = ground water; LAK = lake; OCE = ocean; PAD = paddy; PND = pond; RES = reservoir;	S = cistern; water; LAK = lake S = reservoir;	27	Statistics: Number of lo	Statistics: Number of locations sampled: 2	red: 2	

HST = waste water. b Not detected.

RIV = river; RNF = rumoff; SW = surface water; TAP = tap water;

C Detection limit = 5.0 ppb.

166

Table C-42. Pesticides for which monitoring data were reported only once in the literature.

	Vater		₩ 6. of	Reported values (Mg/L)	nes (Mg/L)	
Location	typea	Substance	se i deses	May visuum	Comments	Reference
USA. CALIFORNIA	ā	1.2.0	:			
The Car of Contracts	3		ኧ	2555.0	ပ က်	FAD082
USA, CALIFURNIA	3	BAYTEX [FENTHION]	23	0.0000	Þ	HADCR2
USA, CALIFORNIA	3	BOTRAN [DCHA]	22	0.0000	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	PAR DOM 2
TAIWAN, TEM-CHI WATERSHED	RIV	CAPTAFUE	76	0.0000		2000
TATMAN, TEN-CHI WATERSHED	RIV	CHLORGBENZILATE	S	0 00000	•	Conc.
USA, CALIFORNIA	港	DUCTHAL (DCPA)	2	0.0000	• 4	MADOR 2
USA, CALIFORNIA	3	DASANIT FENSILEOTHIONS	R:	00000		140063
INDUNESIA, JAKARTA, SAMARANG, SURABAYA	RIY	nort.	~	0.0200	;	PIEDUT7
USA, CALIFÜRNIA	3	DEF	23	0.0000	4	MA PORCO
USA, CALIFORNIA	35	AMITOC	12	O.OOO.O) T	MES DONE 2
USA, CALIFORNIA	8	DISYSTON TUISULFOTCH	<i>(</i>	0.60000	, t	MADOR?
AUSTRALIA, NAMDI VALLEY, WEE WAA, N.S.W.	CIS	DICHLORYOS	8	0.0000	•	M 2074
USA, CALIFORNIA	3	DURSBAN (CHLORPYR!FOS)	27	0.0000	To the	MARCOR?
USA, CALIFORNIA	3	DYFOWATE [FONOFOS]	23	0.0000	4	MADDRZ
USA, CALIFORNIA	3	DYLOX [TRICHLOROFON]	27	0.0000	م ر	PADD82
USA, CALIFORNIA	35	ENDOSULFAN 111	22	0.0000.0	D	PADD82
USA, CALIFORNIA	3	FOLEX [NERPHOS]	23	0.0000	Þ,	PADDB2
USA, CALIFYONIA	3	GUTHICH [AZINPHOSHETHYL]	23	0.0000	p q	HADD62
USA, CALIFORNIA	3	INIDAN [PHOSMET]	27	0.000C	P 4	HADD62
USA, CALIFORNIA	35	KELTHANE [DICOFOL]	22	0.0000	P Q	HADD82
INCOMESTA, JEPARA	35	LEPTOPHOS	=	13.47000		PURN77
AUSTRALIA, NAMOI VALLEY, WEE WAA, N.S.W.	CIS	MONDCR0T0PH0S	30	0.0000		00M 74
	3.	0,p'-000	S	0.06000	•	POLE83
ITALY, COASTAL ARCH N. OF TARANTO, TARA RIVER BASIN	æ	o,p'-00£	S	0.03000		POLE 83
USA, CALIFURNIA	3	PCNB	23	0.0000	b, d	PADD82
INIMAN, IEH-LAI WAIERSHED	κī<	PCP-NA	69	0.0000	·	WONG83

Table C-42. (Continued)

			•	Reported values (119/L)	lues (11/61)	
Location	Mater type ^a	Substance	No. of samples	Nax fees	Coments	Reference
USA. CALIFORNIA	Ŋ	PERTHANE [ETHYLAK]	22	0.0000	b, d	146062
USA. CALIFORNIA	: 3	SUPRACIDE (NETHIDATHION)	12	0.0000	٠ •	PANDOS
USA. CALIFORNIA	75	TEDION [TETRADIFON]	22	0.0000	D . d	HADDEZ
USA. CALIFORNIA	39	THINET (PHORATE)	13	0.0000	.	PALCOSZ
IISA, CALIFORNIA	AS	TORAK (DIALIFOR)	23	0.0000	D.	HADDB2
USA, CALIFORNIA	3	ZOLONE (PHOSALONE)	23	0.0000	b. 4	140082

Water types: BRK = brackish; CAN = canal; CIS = cistern; CRK = creek; DRN = drainage; GN = ground water; LAK = lake;

OCE = ocean; PAD = paddy; PMD = pond; RES = reservoir; RIV = river; RMF = runoff; SW = surface water; TAP = tap water;

WST = waste water.

Not detected.

C Detection limit = 0.1 ppb.

d Detection limit = 5.0 ppb. e Average detected < 1.00 ppb.

f From roof tanks in town.

REFERENCES FOR APPENDIX C

- ALLA83 Allahpuchay, I., M. Mishima, and T. Yoshida, "An Improvement for the Concentration of Micropollutants in the Marine Environment by Using a Bacteria Strain with a Membrane Filter System," <u>Bull. Environ. Contam.</u>

 <u>Toxicol.</u> 30, 253-260 (1983).
- BADA84 Badawy, M. T., M. A. El-Dib, and O. A. Aly, "Spill of Methyl Parathion in the Mediterranean Sea: A Case Study at Port-Said, Egypt," <u>Bull. Environ.</u>

 <u>Contam. Toxicol.</u> 32, 469-477 (1984).
- BIDL73 Bidleman, T. F., "Chlorinated Hydrocarbons in the Sargasso Sea Atmosphere and Surface Water," <u>Science</u> 183, 516-518 (1973).
- Cinar, A., and N. Ergun, "Estimation of Residue Levels of DDT and Its Metabolites in the Main Drainage Channels of Lower Seyhan Delta Throughout 1979," <u>J. Turkish Phytopath</u>. 11, 101-106 (1982).
- ELSE79 El-Sebae, A. H. J., and M. Abu-Elamayem, "A Survey to Determine Potential Pollution of the Mediterranean by Pesticides from the Egyptian Region," <u>Les Journees Etud. Pollutions</u>, 149-153 (1979).
- ELZA83 El-Zanfaly, H. T., M. R. Lasheen, M. M. El-Abagy, S. A. El-Hawaary, and M. I. Badawy, "Assessment of El-Salaam Underground Water for Poultry Use," Environ. Int. 9, 313-317 (1983).
- GALA81 Galassi, S., and A. Provini, "Chlorinated Pesticides and PCB's Contents of the Two Main Tributaries into the Adriatic Sea," Sci. Total Environ. 17, 51-57 (1981).
- GIAM76 Giam, C. S., H. S. Chan, and G. S. Neff, "Concentrations and Fluxes of Phthalates, DDT's and PCB's to the Gulf of Mexico," <u>Marine Pollutant Transfer</u>, H. L. Windom and R. A. Duce, Eds. (Lexington Books, Lexington, MA, 1976), pp. 375-386.

- GIAM78 Giam, C. S., H. S. Chan, G. S. Neff, and E. L. Atla, "Phthalate Ester Plasticizers: A New Class of Marine Pollutant," Science 199, 419-421 (1978).
- GORB71 Gorbach, S., R. Haarring, W. Knauf, and H. J. Werner, "Residue Analyses in the Water System of East-Java (River Brantas, Ponds, Sea-Water) after Continued Large Scale Application of Thiodan in Rice," <u>Bull. Environ.</u>

 <u>Contam. Toxicol.</u> 6, 40-47 (1971).
- GREI77 Greichus, Y. A., A. Greichus, P. D. Amman, D. J. Call, D. C. D. Hamman, and R. M. Pott, "Insecticides, Polychlorinated Biphenyls and Metals in African Lake Ecosystems, I. Gartbeespoort Dam, Transvaal and Voelvlei Dam, Cape Province, Republic of South Africa," Arch. Environ. Contam.

 Toxicol. 6, 371-383 (1977).
- GREI78A Greichus, Y. A., A. Greichus, P. D. Amman, and J. Hopecraft, "Insecticides, Polychlorinated Biphenyls and Metals in African Lake Ecosystems. III. Lake Nakuru, Kenya," Bull. Environ. Contamin. Toxicol. 19, 454-461 (1978).
- GREI78B Greichus, Y. A., A. Greichus, H. S. Draayer, and B. Marshall, "Insecticides, Polychlorinated Biphenyls and Metals in African Lake Ecosystems. II. Lake Mellwaine, Rhodesia," Bull. Environ. Contam. Toxicol. 19, 444-453 (1978).
- GREV72 Greve, P. A., "Potentially Hazardous Substances in Surface Waters. II. Cholinesterase Inhibitors in Dutch Surface Waters," Sci. Total Environ. 1, 253-265 (1972).
- HARP77 Harper, D. B., "BHC Residues of Domestic Origin: A Significant Factor in Pollution of Freshwater in Northern Ireland," Environ. Pollut. 12, 223-233 (1977).
- HARP80 Harper, D. B., Organochlorine Pesticide Pollution in Northern Ireland," Anal. Proc. 17, 414-417 (1980).
- HERZ72 Herzel, F., "Organochlorine Insecticides in Surface Waters in Germany-1970 and 1971," Pestic. Monit. J. 6, 179-187 (1972).

- HUGH70 Hughes, R. A., G. D. Veith, and G. F. Lee, "Gas Chromatographic Analysis of Toxaphene in Natural Waters, Fish, and Lake Sediments," Water Res. 4, 547-558 (1970).
- JONA76 Jones, R. B., "Chlorinated Hydrocarbon Pesticides in Western North Atlantic Ocean," Environ. Sci. Technol. 10, 770 (Aug., 1976).
- KAHA74 Kahanovitch, Y., and N. Lahav, "Occurrence of Pesticides in Selected Water Sources in Israel," <u>Environ. Sci. Technol.</u> 8, 726-765 (1974).
- KALL77 Kallqvist, T., and B. S. Meadows, "Pesticide Levels in the Kenyan Rural Environment," <u>African Environ</u>., 163–170 (1977).
- KANN79 Kannan, V., and S. V. Job, "Studies on the Residual Levels of Pesticide Pollution in the Sathiar Reservoir," <u>J. Radioanal. Chem.</u> <u>53</u>, 247-253 (1979).
- LAHA74 Lahar, N., and Y. Kahanovitch, "Lindane Residues in the Southern Coastal Aquifer of Israel," Water Air Soil Pollut. 3, 253-259 (1974).
- LENA84 Lenardon, A. M., M. I. M. DeHevia, J. A. Fuse, C. B. DeNochetto, and P. J. Depetris, "Organochlorine and Organophosphorus Pesticides in the Parana River (Argentina)," Sci. Total Environ. 34, 289-297 (1984).
- Lenon, H., C. LaVerne, A. Miller, and D. Patulski, "Insecticide Residues in Water and Sediment from Cisterns on the U.S. and British Virgin Islands--1970," Pestic. Monit. J. 6, 188-193 (1972).
- MADD82 Maddy, K. T., H. R. Fong, J. A. Lowe, D. W. Conrad, and A. S. Fredrickson, "A Study of Well Water in Selected California Communities for Residues of 1,3-Dichloropropene, Chloroallyl Alcohol, and 49 Organophosphate or Hydrocarbon Pesticides," Bull. Environ. Contam. Toxicol. 29, 354-359 (1982).
- MEIE83 Meier, P. G., D. C. Fook, and K. F. Lagler, "Organochlorine Pesticide Residues in Rice Paddies in Malaysia, 1981," <u>Bull. Environ. Contam. Toxicol.</u> 30, 351-357 (1983).

- MEST83 Mestres, R., and J. F. Cooper, "Monitoring of Chlorinated Hydrocarbons in Water, Sediment, and Biota in the Mediterranean," Pesticide Chemistry:

 Human Welfare and the Environment; Proceedings of the 5th International Congress of Pesticide Chemistry, Kyoto, Japan, 29 August—4th September 1982, Vol. 4: Pesticide Residues and Formulation Chemistry, J. Miyamoto, et al., Eds. (Pergamon Press, New York, NY, 1983), pp. 141-146.
- MUKH80 Mukherjee, D., B. R. Roy, J. Chakraborty, and B. N. Ghosh, "Pesticide Residues in Human Foods in Calcutta," <u>Indian J. Med. Res.</u> 72, 577-582 (1980).
- NICH64 Nicholson, H. P., A. R. Grzenda, G. J. Layer, W. S. Cos, and J. T. Teasley, "Water Pollution by Insecticides in an Agricultural River Basin. I. Occurrence of Insecticides in River and Treated Municipal Water," <u>Limnol. Oceanogr.</u> 9, 310-317 (1964).
- OCHI76 Ochai, M., and T. Hanya, "Alpha- and Gamma-BHC in Tamagawa River Water, Japan (September 1968--September 1969)," Environ. Pollut. 11, 161-166 (1976).
- OSMA80A Osman, M. A., and M. H. Belal, "Persistence of Carbaryl in Canal Water," <u>I.</u>
 Environ. Sci. Health <u>B15</u>, 307-311 (1980).
- OSMA80B Osman, M. A., M. Belal, A. M. Nomiassy, and A. M. Yousse, "Organic Contaminants in Water," J. Environ. Sci. Health B15, 295-306 (1980).
- OSTE77 Osterroht, C., "Dissolved PCB's and Chlorinated Hydrocarbon Insecticides in the Baltic, Determined by Two Different Sampling Procedures," Mar. Chem. 5, 113-121 (1977).
- OUW74 Ouw, K. H., and A. G. Shandar, "A Health Survey of WeeWaa Residents During 1973 Aerial Spraying Season," Med. J. Aust. 2, 871-873 (1974).
- PAZ76 Paz, J. D., "Preliminary Study of the Occurrence and Distribution of DDT Residues in the Jordan Watershed, 1971," Pestic. Monit. J. 10, 96-100 (1976).

- POLE83 Polemic, M., S. A. Bufo, and M. R. Provenzano, "Chlorinated Hydrocarbon Pesticide Residues in Irrigation Waters," Sci. Tech. Lett. 4, 189-196 (1983).
- PUCC80 Puccetti, G., and V. Leoni, "PCB and HCB in the Sediments and Waters of the Tiber Estuary," Mar. Pollut. Bull. 11, 22-25 (1980).
- PURN77 Purnomo, A., and A. Hanafi, "Agricultural Pesticides in Brackish Water Environment and Suggestions for Protecting Aquaculture Resources," ASEAN. First ASEAN Meeting of Experts in Aquaculture, Semarang, Indonesia, 1977, ASEAN 77/FA. EgA. Rpt.2.
- RAJU82 Raju, G. S., K. Visweswariah, J. M. M. Galindo, A. Khan, and S. K. Majumder, "Insecticide Pollution in Potable Water Resources in Rural Areas and the Related Decontamination Techniques," <u>Pesticides</u> 16, 3-6 (1982).
- SAAD82 Saad, M. A. H., M. M. Abu-Elamayem, A. H. El-Sebae, and I. F. Sharaf, "Occurrence and Distribution of Chemical Pollutants in Lake Mariut, Egypt. I. Residues of Organochlorine Pesticides," <u>Water Air Soil Pollut</u>. <u>17</u>, 245-252 (1982).
- SAST83 Sastry, M. S., "Monitoring of Pesticide Residues in Animal Feeds and Animal Products," <u>Pesticides 17</u>, 36–38 (1983).
- SCHO81 Schou, L., and J. E. Krane, "Organic Micropollutants in a Norwegian Water-Course," Sci. Total Environ. 20, 277-286 (1981).
- SSER74 Sserunjoji, J. M. S., <u>A Study of Organochlorine Insecticide Residues in Uganda, with Special Reference to Dieldrin and DDT</u>, IAEA-SM-175/36 (1974), pp. 43-45.
- SUZU74 Suzuki, M., Y. Yamato, and T. Akiyama, "BHC (1,2,3,4,5,6-Hexachloro-cyclohexane) Residue Concentrations in the Kitakyushu District, Japan 1970-1973," Water Res. 8, 643-649 (1974).

- SUZU77 Suzuki, M., Y. Yamato, and T. Akiyama, "Occurrence and Determination of a Herbicide Benthiocarb in Rivers and Agricultural Drainages," <u>Water Res.</u> 11, 275-279 (1977).
- SUZU78 Suzuki, M., Y. Yamato, and T. Akiyama, "Fate of Herbicide CNP in Rivers and Agricultural Drainages," Water Res. 12, 777-781 (1978).
- Swain, W. R., M. D. Mullin, and J. C. Filkins, <u>Refined Analysis of Residue</u>

 <u>Forming Organic Substances in Lake Trout from the Vicinity of Isle Royale,</u>

 <u>Lake Superior</u>, Paper presented before the 25th Annual Meeting of the

 International Association for Great Lakes Research, 4-6 May 1982, Sault

 Ste. Marie, Ontario, Canada.
- TANA80 Tanabe, S., and R. Tatsukawa, "Chlorinated Hydrocarbons in the North Pacific and Indian Oceans," J. Oceanogr. Soc. Jpn. 36, 217-226 (1980).
- TANA82 Tanabe, S., R. Tatsukawa, M. Kawano, and H. Hidaka, "Global Distribution and Atmospheric Transport of Chlorinated Hydrocarbons: HCH (BHC) Isomers and DDT Compounds in the Western Pacific, Eastern Indian, and Antarctic Ocean," J. Oceanogr. Soc. Jpn. 38, 137-148 (1982).
- TANA83 Tanabe, S., H. Hidaka, and R. Tatsukawa, "PCB's and Chlorinated Hydrocarbon Pesticides in Antarctic Atmosphere and Hydrosphere,"

 Chemosphere 12(2), 277-288 (1983).
- TEIM79 Teimoury, S., and M. Hosseiny-Shekarabi, "Residue Estimation of Some Insecticides Used Against Rice Stem Borer in Paddy Fields in the Field Water," Entomol. Phytopathol. Appl. 49, 79-95 (1979).
- VAND78 VanDyk, L. P., "Plaagdoders in Riverwater van die Nasionade Krugerwildtuin," Koedoe. 21, 71-80 (1978).
- WALL79 Waller, W. T., "Evaluation of Observations of Hazardous Chemicals in Lake Ontario During the International Field Year for the Great Lakes," <u>Environ. Sci. Technol.</u> 13(1), 79-85 (1979).

- WEGM78 Wegman, R. C., "Halogenated Hydrocarbons in Dutch Water Samples over the Years 1969-1977," Environ. Sci. Res. 16, 405-415 (1978).
- WEIS80 Weise, A. F., "Loss of Fluometuron in Runoff Water," J. Environ. Qual. 9(1), 1-15 (1980).
- WEST79 West, S. D., E. W. Day, and R. O. Burger, "Dissipation of the Experimental Aquatic Herbicide Fluridone from Lakes and Ponds," J. Agric. Food Chem. 27, 1067-1073 (1979).
- WEST83 West, S. D., R. O. Burger, G. M. Poole, and D. H. Mowrey, "Bioconcentration and Field Dissipation of the Aquatic Herbicide Fluridone and Its Degradation Products in Aquatic Environments," J. Agric. Food Chem. 31, 570-585 (1983).
- WILL83 Willis, G.H., L.L. McDowell, C.E. Murphree, L.M. Southwick, and S. Smith, "Pesticide Concentrations and Yields in Runoff from Silty Soils in the Lower Mississippi Valley," J. Agric. Food Chem. 31, 1171-1177 (1983).
- WONG83 Wong, S-S., "Problems on Environmental Safety Associated with Pesticides Usage in Li-Shan Orchards," <u>J. Agric. Assoc. China</u>, New Series No. <u>123</u>, Sept. (1983).
- YAMA80A Yamato, Y., and M. Suzuki, "Occurrence of Herbicide Oxadiazon in Surface Waters and Tap Water," Water Res. 14, 1435-1438 (1980).
- YAMA80E Yamato, Y., M. Suzuki, K. Shimohara, and T. Akiyama, "Behavior of HCH (1,2,3,4,5,6-Hexachlorocyclohexane) Residue in the Aquatic Environment," Water Res. 14, 247-251 (1980).
- YAMA81 Yamagishi, T., and K. Akiyama, "1,3,5-Trichloro-2-(4-nitrophenoxy)
 Benzene in Fish, Shellfish, and Seawater in Tokyo Bay, 1977-1979," Arch.
 Environ. Toxicol. 10, 627-635 (1981).

DISTRIBUTION (Continued)

1 copy Commander U.S. Army Materiel Command ATTN: AMCGS-O Alexandria, VA 22333-0001 1 copy Commander U.S. Army Environmental Hygiene Agency ATTN: HSHB-EW-R Aberdeen Proving Ground, MD 21010-5422 and Commander 1 copy U.S. Army Environmental Hygiene Agency ATTN: HSHD-AD-L Aberdeen Proving Ground, MD 21010-5422 and 1 copy Commander U.S. Army Environmental Hygiene Agency ATTN: HSHB-OM Aberdeen Proving Ground, MD 21010-5422 1 copy Commander/Director U.S. Army Construction Engineering Research Laboratory ATTN: CERL-EN Champaign, IL 61820-1305 1 сору Director Walter Reed Army Institute of Research ATTN: SGRD-UWK Washington, DC 20307-5100 1 copy Commandant U.S. Army Academy of Health Sciences ATTN: HSHA-CDS Fort Sam Houston, TX 78234-6100 Commander 1 copy U.S. Army Belvoir Research, Development and Engineering Center ATTN: STRBE-FS Fort Belvoir, VA 22060-5606 Commander 1 copy U.S. Army Natick Research, Development and Engineering Center ATTN: DRDNA-YE Natick, MA 01760-5020

Commander

U.S. Army Research Institute of Environmental Medicine ATTN: SGRDUE-HR Natick, MA 01760-5007

1 copy

DISTRIBUTION

26 copies

Commander

U.S. Army Biomedical Research and Development Laboratory

ATTN: SGRD-UBZ-C

Fort Detrick

Frederick, MD 21701-5010

2 copies

Commander

U.S. Army Medical Research and Development Command

ATTN: SGRD-RMI-S

Fort Detrick

Frederick, MD 21701-5010

2 copies

Defense Technical Information Center (DTIC)

ATTN: DTIC-DDA Cameron Station

Alexandria, VA 22304-6145

1 copy

Dean

School of Medicine

Uniformed Services University of

the Health Sciences 4301 Jones Bridge Road Bethesda, MD 20814-4799

1 copy

Commandant

Academy of Health Sciences, U.S. Army

ATTN: AHS-CDM

Fort Sam Houston, TX 78234-6100

1 copy

Commander

U.S. Army Materiel Command

ATTN: AMCEN-A 5011 Eisenhower Ave. Alexandria, VA 22333-000

1 copy

Commandant

U.S. Army Quartermaster School

ATTN: ATSM-CD

Fort Lee, VA 23801-5000

1 copy

Commander

U.S. Army Chemical Research, Development

and Engineering Center ATTN: SMCCR-CBM

Aberdeen Proving Ground, MD 21010-5423

1 copy

Commander

U.S. Army Chemical Research, Development

and Engineering Center

ATTN: SMCCR-RST

Aberdeen Proving Ground, MD 21010-5423

DISTRIBUTION (Continued)

1 copy	Dr. Kris Khanna U.S. Environmental Protection Agency Office of Drinking Water (WH-550) Washington, DC 20460-5101 and
1 copy	Mr. Frank Bell U.S. Environmental Protection Agency Office of Drinking Water (WH-550) Washington, DC 20460-5101
1 сору	Dr. Vincent J. Ciccone, President V.J. Ciccone & Associates, Inc. 14045 Jeff Davis Hwy (Suite 5) Woodbridge, VA 22191
1 copy	Dr. Robert C. Cooper, Director Sanitary Engineering and Environmental Health Research Laboratory (Bldg. 112) University of California, Richmond Field Station 47th & Hoffman Boulevard Richmond, CA 94804
1 copy	Dr. John A. Dellinger Department of Veteranary Biosciences University of Illinois, Urbana Campus 2001 S. Lincoln Avenue Urbana, IL 61801
1 сору	Dr. Lawrence B. Gratt, President IWG Corp. 1940 Fifth Avenue (Suite 200) San Diego, CA 92101
1 сору	Dr. Dennis P.H. Hsieh Department of Environmental Toxicology University of California, Davis Davis, CA 95616
1 copy	Dr. Robert Scofield ENVIRON Corporation 6475 Christie Avenue Emeryville, CA 94608
1 copy	Dr. Robert E. Selleck Environmental Engineering Department School of Engineering (Davis Hall Rm. #635) University of California, Berkeley Berkeley, CA 94720

DISTRIBUTION (Continued)

1 copy Commander

U.S. Army Medical Research and

Development Command ATTN: SGRD-PLC

Fort Detrick, Frederick, MD 21701-5012

1 copy HQDA OTSG

ATTN: DASG-PSP-E 5111 Leesburg Pike

Falls Church, VA 22041-3258

1 copy NAVMED COM

Code MEDCOM 02C

Washington, DC 20372-5120

1 copy HQ, USAF, Bolling AFB

ATTN: SGES

Washington, DC 20332-5000

1 copy U.S. Navy Environmental Health Center

Code 64

Norfolk, VA 23511

1 copy HQ, U.S. Marine Corps

Office of the Medical Officer

Code Med

Washington, DC 20380-5000

1 copy Commander

U.S. Army Medical Research Institute of

Chemical Defense ATTN: SGRD-ZS

Aberdeen Proving Ground, MD 21010-5425

1 copy U.S. Air Force Engineering Services Center

ATTN: AFESC/DEOP Tyndall AFB, FL 32403

1 copy Naval Sea Systems Command

Theater Nuclear Program Office

ATTN: PMS-423-M

Washington, DC 20362-5101

1 copy Commander

U.S. Army Nuclear and Chemical Agency

ATTN: DONA-CM

7500 Backlick Road, Bldg. 2073 Springfield, VA 22150-3198